GCCS System Integration Support

Software User's Manual for RDA Build 2

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1.0 SCOPE

1.1 Identification

This draft Software User Manual (SUM), developed in accordance with Section 2, reference a., applies to the Requirements Development and Analysis (RDA) Build 2 System, Version 1.0. This is a component of the Global Command and Control System (GCCS) Version 2.1.

1.2 System Overview

RDA provides a capability to create, add, modify, delete, and generate output on deployment-related information contained in an Operation Plan (OPLAN) Time Phased Force and Deployment Data (TPFDD). See Section 2, references b., c., and d. for current and legacy system data descriptions.

RDA is the result of migrating and integrating the applicable portions of the Joint Operation Planning System (JOPS) and the Joint Deployment System (JDS). This TPFDD edit capability is a critical tool for deliberate or peacetime planning and time-sensitive or Crisis Action System (CAS) planning. From a functional viewpoint, the legacy system (JOPS/JDS) procedures for TPFDD development and editing were satisfactory, however technical issues associated with the GCCS development necessitated a migration to a modern, state-of-the-art operating environment.

The specific types of functionality include:

- Plan Population and Maintenance
- Requirements Generation and Maintenance
- Availability of Unit Information
- Force Module (FM) Development and Maintenance
- Availability of Reference File Information, and
- Pre-Defined Reports/Retrieval Generation.

The need for a replacement of the legacy systems has been long recognized. In the summer of 1994, a migration strategy was developed (Section 2, references e. and f.) that addressed the various legacy elements that required migration and provided an overview of the time and effort required to migrate to the GCCS that was (and is) under development. After several sessions between the overall Government sponsors and end users, a TPFDD editor replacement project (later named RDA) was developed. The project is directed by the Defense Information Systems Agency (DISA) with the user community being represented by the User Review Panel (URP) (see, for example, Section 2, reference g.). The developer for the RDA is Computer Sciences Corporation, Falls Church, VA. The current operating site is the DISA Off-Site Facility (OSF) at Reston, VA. The system is expected to be exported to all GCCS nodes upon completion of Government acceptance testing.

Because RDA is a new system, it is recommended that the first time user read the entire SUM before trying to execute any of the programs. The SUM provides a general overview of the system and its functions as well as detailed instructions (Section 5) for executing the various functions. The quick-reference guide, shown in Paragraph 5.8, also is available to assist the novice user.

1.3 Document Overview

This document provides the user with instructions for operating RDA.

Contents of the RDA System SUM are:

Section 1: This section identifies, describes, and gives the purpose of the RDA System.

Section 2: This section lists references applicable to this document.

Section 3: This section discusses RDA software (S/W) applications, S/W inventory, S/W environment, operation of the S/W, emergency procedures, S/W security considerations, and procedures for S/W problem resolution.

Section 4: This section contains step-by-step procedures for operation of the software by first time users. It covers detailed discussions of the equipment the S/W is using, system access, i.e. passwords and security, S/W installation and setup, initiating work sessions, and how the user can cease or interrupt S/W use.

Section 5: This section provides the user with procedures for using the RDA System S/W. It describes the interrelationships of the transactions, menus, functions and processes of the system. It covers background processing, data backup procedures and detailed procedures for restart of recovery during processing emergencies. Lists of all error messages, diagnostic messages and information messages of interest to the user are provided. Lastly, it includes a quick-reference guide for using the S/W.

Section 6: This section provides general information to help the user understand the document, i.e. acronyms, definitions and other pertinent background information on the system.

Appendix A: This appendix, consisting completely of figures, graphically displays the environment in which RDA operates. These figures are discussed in Sections 3 and 4.

Appendix B: This appendix shows selected windows of the RDA System. These are referenced and discussed in Section 5.

Appendix C: This appendix shows the formats of pre-defined reports available from wthin the RDA.

Appendix D: This appendix discusses some routines used in various applications and shows the windows for GEOLOC Select, TUCHA Select and GSORT Select.

2.0 REFERENCED DOCUMENTS

The following documents are referenced in this SUM:

a. Military Standard Software Development and Documentation (MIL-STD-498), Data Item Description (DID) DI-IPSC-81443, Software User Manual (SUM), 5 December 1994.

b. Joint Operation Planning and Execution System (JOPES) Development and Integration Maintenance Manual: Scheduling and Movement (S&M) GCCS Core Database Maintenance Manual, August 25, 1994.

c. Joint Operation Planning System (JOPS) Time Phased Force Deployment Data (TPFDD) and Related Files (SPM DS 143-87), 1 April 1987.

d. Joint Deployment System Data Base Specification (TD 18-17), 30 September 1988.

e. Joint Operation Planning and Execution System (JOPES) Migration Strategy (Draft), Version 1.0, August 8, 1994.

f. Migration Engineering Strategy Guide Near-term Migration Strategy, 31 August 1994.

g. Worldwide Military Command and Control System (WWMCCS) Intercomputer Network (WIN) Teleconference Title GCCSNEWS Message Number 390, Subj: 21-23 Feb Meeting of JOPES URP, 1 March 1995.

h. Joint Operation Planning and Execution System Reporting Structure (JOPESREP (Joint Pub 1-03.21), May 24, 1994 - to become CJCSI 3150.16).

i. Software User's Manual: JOPES Users Guide (Draft), May 30, 1995.

3.0 SOFTWARE SUMMARY

This section provides an overview of the RDA software, data inputs, basic functionality, list of capabilities, and output (e.g., reports).

3.1 Software Application

RDA system is a versatile, user friendly, requirements development and analysis modeling capability that supports planners in developing or modifying the force and non-unit requirements (cargo and personnel) for deliberate planning or for crisis deployment operations. To accomplish this, RDA uses an integrated set of automated tools and the JOPES Core database supporting joint operators and planners in both peacetime (deliberate) and time-sensitive (crisis action) planning conditions. It affords the user an opportunity to quickly develop and analyze proposed Course of Actions (COAs) in relation to asset allocations and TPFDD modifications.

3.1.1 Benefits

There are two major areas of improvement over the legacy systems.

3.1.1.1 Core Database

RDA operates directly off the JOPES Core database. Thus, it is connected to all systems using this database. Presently, there are other systems within GCCS sharing this relational database in the client/server environment. These systems are the Joint Feasibility Analysis System for Transportation (JFAST), Logistics Sustainment Analysis and Feasibility Estimator (LOGSAFE), RDA, and, Scheduling and Movement Subsystem (S&M), Reports, TCC External System Interface (ESI), Ad Hoc Query (AHQ), Joint Engineer Planning and Execution System (JEPES), Medical Planning and Execution System (MEPES), GCCS Status of Resources and Training System (GSORTS), Information Resource Manager (IRM), Force Augmentation Planning and Execution System (FAPES). Figure A-1, JOPES Applications and Databases, illustrates the JOPES Systems and Software Module Architecture. Through the sharing of functional applications via this core relational database across different computer system platforms, RDA gives joint operators and planners the ability to edit and analyze TPFDDs for accuracy and transportation feasibility. It supports rapid manipulation of the TPFDD and graphically displays and compares data for rapid analysis. Because of the advantages available via the use of a relational database and the client server architecture, the requirement for external interfaces will be met through the Core database.

3.1.1.2 Relation to JOPESREP

The system follows the constraints of previous, legacy system software and Joint Operation Planning and Execution System Reporting Structure (JOPESREP) (see Section 2, reference h.) with the exceptions displayed (see Table 3.1.1.2-1, Exceptions to the JOPESREP Implemented in RDA). These exceptions have been directed and coordinated with the URP. Information within the parentheses in the table entries below indicate the specific reference within Section 2, reference h.

Table 3.1.1.2-1. Exceptions to the JOPESREP Implemented in RDA

ITEM	COMMENT
Unit Line Number (ULN) (Table I-3)	The Independent Force Category has been expanded to permit two character values.
Split Shipments (Table I-3; Table I-28/Num. 39, 46; Appendix B)	The split personnel record will not be edited to indicate an error if cargo is included. The split cargo record will not be edited to indicate an error if personnel are included.
Location of Intermediate Stop Codes (Table I-13).	Intermediate stop location codes have been updated to the new database values.
FRN, CIN, and PIN Reserved Assignments (Table I-27)	Assignments are not enforced or edited.
FRN Hierarchy-Related Messages (Table I-28)	FRN Hierarchy is not enforced or edited.
Records with Destination Preferred Mode of "Z" (In-Place) (Appendices B/C)	No edits are performed to enforce no Force Movement Characteristics, no Force Requirement and Routing Data, or indicated Non-unit data.
Alternate Ports & Ports of Support (Appendix B)	No edits are performed.

3.2 Software Inventory

The following software inventory is required to support RDA.

3.2.1 Directories

The RDA Application installation creates the following directories.

./bin/sol2s (Solaris 2.x Gain Momentum executable files)

./bin (Gain Momentum utility executables, and the rdab2 startup file)

./lib/config (Font and keybinding mapping files)

./lib/scripts (Gain Momentum startup GEL scripts)

./lib/afm (Gain Momentum font files, managed by Gain runtime)

./lib (splash screen, sqlhosts.txt)

./data (RDA and Gain Momentum code libraries)

./var/vortex/bin/hp700 (HP Gain Momentum utilities (partial set, generated during runtime generation))

./var/vortex/bin/iris (Iris Gain Momentum utilities (partial set, generated during runtime generation))

./var/vortex/bin/nti (nti Gain Momentum utilities (partial set, generated during runtime generation))

./var/vortex/bin/osfla (OSFLA Gain Momentum utilities (partial set, generated during runtime generation))

./var/vortex/bin/rs6k (RS6000K Gain Momentum utilities (partial set, generated during runtime generation))

./var/vortex/bin/sol2s (Solaris 2.x Gain Momentum utilities (partial set, generated during runtime generation))

./var/vortex/bin/sun4 (Sun OS 4.x Gain Momentum utilities (partial set, generated during runtime generation))

./var/vortex/bin (Gain Momentum vortex binary directory)

./var/vortex (Gain Momentum vortex utility directory)

./var (Gain Momentum var directory)

About 50 megabytes of space is required.

3.2.2 ORACLE Database

RDA uses the table_master table space and no user specific table space is required. The principal JOPES Core database tables with which RDA interacts are described in the following subsections:

3.2.2.1 General Table Relationships

Table relationships, shown in Figure A-2, Key RDA Table Relationships, provides a simplistic overview of the applicable portions of the JOPES Core database. Additional detail is available in Section 2, reference d.

There is an additional table discussed in subparagraph 3.2.2.1.8 below. It is used for specific operations within the multiple record operation of RDA. It requires no user interaction, but is unique for each User Identification (USERID).

3.2.2.1.1 OPLAN

The OPLAN is the initial or first level table of a specific Plan Identification (PID) number. It includes the basic parameters of the PID. From it, other tables may be accessed. Each PID must be unique. Although not controlled by RDA, the host site, plan type (real or exercise, limited, close hold, or normal, local or networked, installed or place holder only), and security classification must be specified.

3.2.2.1.2 FORCE_MODULE

This table identifies the force modules related to PIDs. It includes the identifier and text fields associated with force modules. Each combination of PID and Force Module Identifier (FMID) must be unique.

3.2.2.1.3 FORCE_MODULE_RQMT

This table identifies the Requirement Identifications (IDs): (Unit Line Numbers (ULNs), Cargo Increment Numbers (CINs), and Personnel Increment Numbers (PINs)) associated with a force module. Each combination of PID, FMID, and Requirement ID must be unique.

3.2.2.1.4 OPLAN_FORCE RQMT

This table identifies the force, unit if assigned, level 2 cargo characteristics, and dates. Each combination of PID and ULN must be unique. In addition, when creating or editing a record, a valid Service and Unit Type Code (UTC) must be specified.

a. **OPLAN_FORCE_RQMT_LOC**. This table identifies the force routing information. Each node is a row. Thus, technically each node may have a space for characteristics not available in the legacy systems. These are not allowed as there is no transaction processing support. Edit and error checks are provided to check for these conditions. Each combination of ULN and node identifier must be unique.

b. **OPLAN_FORCE_RQMT_CARGO**. This table provides the cargo level 3 information. When creating or editing level 3 cargo information, a valid Cargo Category Code (CCC) must be entered.

c. **OPLAN_FORCE_RQMT_CARGO4**. This table provides the cargo level 4 information. All the data elements with the exception of the quantity value in the line consist of the row identifier. Thus, at least one value must be different in each row. When creating or editing level 4 cargo, a valid CCC must be provided.

3.2.2.1.5 OPLAN_NONUNIT_RQMT_PRSL

This table identifies the non-unit personnel assigned to the PID. Each combination of PID and PIN must be unique.

3.2.2.1.6 OPLAN_NONUNIT_RQMT_CARGO

This table identified the non-unit cargo assigned to the PID. Each combination of PID and CIN must be unique. In addition, whenever creating or editing a record, a valid CCC must be specified.

3.2.2.1.7 OPLAN_NONUNIT_RQMT_LOC

This table supports the two non-unit tables discussed above. It provides routing information. Each node is a row. Each combination of CIN/PIN and node identifier must be unique.

3.2.2.1.8 Collection

The database includes an additional table that is fundamental to the use of RDA. The Collection table supports the operation of the display capabilities. It is directly controlled by the Select Function discussed in Section 5. The user may perform actions on all the records (see Collection activities in Section 5) or a selected group (see Marked Record Operations in Section 5).

3.2.2.2 Specific Tables

The RDA user needs all privileges to the following tables in the JOPES Core database table_master:

CARGO_CATEGORY
CARGO_CONTAINERIZATION
CARGO_EXTENT
CARGO_HEAVY_ITEM_TYPE
CARGO_TYPE
CINC_TYPE
COUNTRY_STATE
DISCHARGE_CONSTRAINT
EQUIPMENT_TYPE
FORCE_MODULE
FORCE_MODULE_RQMT
FORCE_PROVIDING_ORGN
FORCE_VALIDATION_STATUS
FUEL_TYPE
GEOGRAPHIC_LOCATION
INSTALLATION_TYPE
JOPES_USER
LOAD_CONFIGURATION_TYPE
NONUNIT_CARGO_PRVDNG_ORGN
NONUNIT_PRSL_PRVDNG_ORGN
NONUNIT_RLTD_TY_MVT_CARGO
NONUNIT_RLTD_TY_MVT_PRSL
NONUNIT_STOP_REASON
OPLAN
OPLAN_ASSUMPTION
OPLAN_CONCEPT
OPLAN_CONDITION
OPLAN_CONSTRAINT
OPLAN_FORCE_RQMT
OPLAN_FORCE_RQMT-CARGO
OPLAN_FORCE_RQMT_CARGO4
OPLAN_FORCE_RQMT_LOC
OPLAN_MAJOR_FORCE
OPLAN_MISSION

OPLAN_NARRATIVE
OPLAN_NONUNIT_RQMT_CARGO
OPLAN_NONUNIT_RQMT_LOC
OPLAN_NONUNIT_RQMT_PRSL
OPLAN_PARENT
OPLAN_PREFERRED_ROUTING
OPLAN_RELATED_PERSONNEL
OPLAN_SOURCE
OPLAN_RESUPPLY_SHORTFALL
OPLAN_ROUTING_STOP
OPLAN_SUPPLY_SHORTFALL
PARENT_INDICATOR_TYPE
RDA_COLLECTION
RDA_OPLAN_VIEW
RDA_PROPOSED_RQMT
REFERENCE_FILE_STATUS
SECURITY_CLASSIFICATION
SERVICE
SUPPLY_CLASS
SUPPORTING_CINC
SUPPORTING_OPLAN
SVC_USNG_ORG_CARGO
SVC_USNG_ORG_PRSL
UNIT_LEVEL
UNIT_TYPE
UNIT_TYPE_CARGO_3RD
UNIT_TYPE_CARGO_4TH
UNIT_TYPE_FUNCT_CATEGORY
UNIT_TYPE_REPLACEMENT
USER_OPLAN_PERMISSION

The RDA user needs execute privileges on the following packages:

RDA_PID_UPDATE
RDAREQUIREMENTS_P1
RDAREQUIREMENTS_P2

3.3 Software Environment

The RDA software environment interacts with system nodes in two ways (see Figure A-3, Network). Updating the local database is accomplished one way while remote databases are updated differently. The paragraphs below discuss the differences.

3.3.1 Local Database

RDA updates to a local sites' GCCS Core database will be accomplished by one of the following methods:

a. **Update functions to all database elements for a specific OPLAN, except Date ranges changes**, will be accomplished by directly updating the sites' local database and generating appropriate update transactions. Upon successful completion of the local database update, the transactions are committed to the Transaction Processing Send Queue.

b. Updating database Date ranges changes, will be accomplished by generating the appropriate update transactions. The External Transaction Processor (XTP) updates the local database, and upon successful completion of the local database update, the transactions are committed to the Transaction Processing (TP) Send Queue.

The Transaction Distribution System (TDS) extracts the transactions from the Send Queue and distributes the transactions across the network for database update synchronization to all alternate sites maintaining the affected OPLAN. In certain instances, a large volume of transactions may be generated for specific update functions encompassing an entire OPLAN (e.g. Update PID from Type Unit Characteristics (TUCHA)). These types of Mass Updates may cause a slight delay in OPLAN transaction update synchronization.

3.3.2 Other Network Sites

Update transaction are received by the alternate OPLAN sites by the TDS and placed in a specified Transaction Processing Receive Queue. The TP then extracts the transactions from the Receive Queue and updates the alternate sites' database.

3.4 Software Organization and Overview of the Operation

The RDA System is based on standard windows, which consist of Primary windows that contain a Title Bar (located at the top of the window), a resize border, (the edges), a window menu button (top left corner (this latter capability must not be used. It could foul up the RDA processing), window control buttons, with the major portion of the window devoted to the application or the functional operation to be performed by the user. The title bar shows the name of the specific RDA operation and should be used as a reference to any operations description, e.g., discussion of a malfunction.

RDA has two primary windows. The first, the Requirements Development and Analysis window, is the first active window displayed. It generally supports operations associated with the PID as a whole. The second primary window, the Editor, supports operations associated with the individual records within and between PIDs.

The RDA also contains many secondary windows that have title areas and menu buttons. These Secondary windows provide additional information to the user and support further actions depending on the functionality being provided. Menu windows also are used and may be associated with the primary, secondary or other menu windows.

Although windows can be displayed in either an overlapping or tiled arrangement, depending on the design of the desires of the user and the operation being conducted, they are usually used in an overlapping mode. The user has the capability to move, expand, or iconize windows as in any window application.

Pull-down menus also are available from menu bars displayed on the windows. These menus consist of a menu title and the set of actions available to the user. Windows also contain a variety of "buttons" which are activated by the user (by placing the pointer on the "button" and clicking on the left side of the pointing device (mouse).

3.4.1 Supervisory Controls

Passwords may be used to limit the capabilities of certain users. The actual password controls are supported in the Plan Maintenance system. The categories available for RDA pertain to the PID(s) as a whole. Limitations include read and write or read only capabilities.

3.4.2 Logical Components

Detailed discussion of the logical components is in Section 5. An overview is provided in Figure A-3.

3.5 Contingencies and Alternative States and Modes of Operation

There are no special alternative states or modes of operation for RDA. The RDA should follow the requirements of GCCS.

3.6 Security and Privacy

The RDA programs are unclassified, however, the GCCS data may be classified up to SECRET. Classification of data shown on the screen and any reports generated by the system will be determined by the highest classification of any piece of information that the RDA will process. This classification setting is set under the GCCS software.

3.7 Assistance and Reporting of Problems

In the event that a user encounters an anomaly during the use of any JOPES product contained within GCCS, a Problem Report (PR) should be issued through the DISA Network Operations Center (NOC) at (703) 735-8681. An information copy should be provided to the DISA Chief, Configuration Management (CM) Point of Contact (POC) at (703) 735-8764.

3.7.1 Problem Reporting

The initial Problem Report (PR) should include the following information, as a minimum:

Originator Name:
Organization:
Phone #:
Fax #:
E-Mail Address:
Severity of Problem:
Description of Problem:

3.7.2 Problem Report Resolution

When a PR is received, a PR number will be assigned and a software engineer will investigate the nature of the PR and attempt to recreate it. Additional information will be requested from the reporting user as required.

The System Engineer will recreate the PR, validate the priority with the user and forward all pertinent documentation to the Configuration Control Board (CCB) for evaluation, prioritization, scheduling and integration of the fix into future releases. If the PR priority is sufficiently high, an emergency patch will be provided to the Joint Planning and Execution Community (JPEC) along with pertinent release notes regarding. In the event that a PR is to be incorporated into a subsequent release, electronic information will be disseminated or made available to the JPEC describing the specific problem, system being used, potential impact on collateral systems, and projected date of fix.

3.7.3 PR Electronic Bulletin Board

JOPES PRs will be posted on an electronic bulletin board as soon as possible to provide pertinent information immediately to all GCCS JOPES users.

3.7.4 Future Enhancement

Present any suggestions or recommendations for changes to improve RDA to the site Functional Manager, who will initiate an Emergency Change Proposal (ECP).

4.0 SOFTWARE ACCESS

4.1 First Time Users

RDA provides the capability to query, add, delete, modify, edit, import data from the various databases contained in the GCCS Core database. It displays OPLAN information, plan information, plan status of the plan, and download/upload plan narratives. The system can be used to edit/add/delete/modify the various records contained in the OPLAN TPFDD, i.e., Force Module (FM), ULN, CIN, PIN, etc. to assist in development or modification of an OPLAN TPFDD. In addition, the system can be used to produce a variety of reports from the information contained in the GCCS Core database. Detailed instructions on how to perform all of these functions and get reports is contained in Section 5.

4.1.1 Equipment Familiarization

The RDA system executes on the standard GCCS hardware platform. Procedures for powering up and powering down a GCCS workstation can be found in the GCCS User's Manual.

The RDA system uses the MOTIF user interface conventions. The cursor is positioned using the mouse. It appears as a darkened arrow pointing towards the upper left corner of the screen. When the system is busy performing a command initiated by the user, the cursor changes to a "clock."

The buttons on the windows and menus may have an underlined letter. This letter may be pressed in lieu of pointing with the mouse left key (not presently available).

Various windows have >,>>,<. and << signs at the bottom of the window. These values indicate a capability to use the specified keys to move the highlight bar down one row, to the last row, up one row, or to the first row of the list.

The F1 key is used to access HELP information where available.

4.1.2 Access Control

Access to the RDA system is provided by the site Functional Database Manager (FDBM). Two levels of access are provided to the regular user. The first level provides the capability to select and view data in the database. If you need to update as well as view data, notify your FDBM.

4.1.3 User Installation and Setup

Once your FDBM has added your user id as valid RDA user, your GCCS desktop will allow access to the RDA System. Access is provided through an RDA icon and through the JOPES Navigation (JNAV) Application.

4.2 Initiating a Session

The user must first log on to the GCCS System and then select the JOPES button. The JOPES window is then displayed (see Figure A-4, RDA Components). The user then selects the Force and Deployment icon and clicks the start bar at the bottom of the screen. After RDA has been initiated, the user will be asked to enter a security classification. After the user has entered the classification, the RDA Main screen appears. At this point, the user may refer to Paragraph 5.3 of this SUM in order to select the particular function and for additional information on running RDA.

This action will result in the RDA logo window being displayed for a short amount of time. Following the logo, there will be a short pause and then the RDA main window will be displayed. The length of the pause is dependent upon the connection to the application server, and the load on the application server at the time of connection.

If the user is prompted for a database login following the display of the RDA logo window, it is an indication that RDA is not properly configured for execution. Contact the site FDBM to check RDA's configuration.

4.3 Stopping/Suspending Work

To exit the RDA application, go to the main RDA window and pull down the "RDA" menu. From the menu select "Exit." This will initiate the termination of RDA execution. Windows may be moved or iconized via standard windows capabilities to access this menu button. All RDA windows that are currently open will be closed. For each open window containing unsaved changes, the user will be prompted to discard the changes, save the changes, or halt the exit process and return to RDA.

When the user halts execution of RDA, any requirements that are currently in the collection are flushed from the system. The actual data records in the database remain intact, only the pointers to the records (i.e. the collection) are removed.

If the GCCS suffers a catastrophic failure (such as disk crash, power failure), the current RDA user session will be terminated. Since changes to the database are saved every time the user selects the Apply or OK buttons, that information will not be lost. Changes made to a window that have not been saved, will be lost after a catastrophic failure. When a user logs in after a catastrophic failure, the system will be reset and the user must select a PID and refill the collection as necessary.

5.0 PROCESSING REFERENCE GUIDE

This section provides detailed RDA System information to a user for the various functions shown in the succeeding paragraphs that are necessary to select OPLANs, display OPLANs, create and edit TPFDD records, view reference files, retrieve data, and generate various reports. This information will include samples of screens and menus to visually aid the user in performing the necessary steps to access the system, required and optional inputs, and other helpful hints on operating the system. Along with each particular function there will be figures which indicate the menu structure within that function. Also, if there are system problems and error reports/warnings to the user, Paragraphs 5.6, 5.7, and 5.8 will provide additional help to the user for problems encountered.

5.1 Capabilities

See Section 3.

5.2 Conventions

To edit text (e.g. PID text fields), a "text object" may be created by holding the left mouse button down while moving over the text. Also, double clicking marks a word and triple clicking marks the entire line. All entries must be upper case except for the individual PID text fields under the Plan Summary Menu/ button After marking the text, the following operations are available via the applicable menu entries.

EDIT Edits an item in a set of items.

CUT Removes an object from a window and stores it in the clipboard.

CLEAR Removes an object from a window without copying it to the clipboard; does not compress the remaining space.

COPY Duplicates an object in a window and copies the object to the clipboard.

PASTE Inserts an object from the clipboard into a window at the selected location.

DELETE Removes an object from a window without copying it to the clipboard; compresses the remaining space.

Applicable buttons on the windows are rectangular and are distributed at various places depending at what the user is viewing. They are all labeled with short action words that clearly denotes to the user what should occur if used. The common ones are:

APPLY Updates the database but does not close a window.

CANCEL Closes a window without updating the database.

CLOSE Closes a window without updating the database. Since it denotes an irreversible action, a warning pop-up window is provided.

EXIT Closes all primary and secondary windows in RDA and ends the processing by RDA.

HELP Displays on-line information about an item or general information about a window. Help is available through the menu button or through the F1 key. It is sensitive to specific windows.

OK Updates the database and closes the window.

OPEN Opens a defined window.

PRINT Initiates a process for printing the contents of a window.

REFRESH Redraws the contents of a window using latest database information.

RESET Cancels any changes made to the window that have not been applied to the database and resets the window to the database values.

The table below displays the various methods of identifying the user capabilities for a (data) field type.

Table 5.2-1. Display Characteristics

Attribute	Display Characteristics	Example
Field Label	● "Flat" Appearance ● **Bold** Character Formatting	**Unit Information**
Read-Only Field	● "Flat" Appearance ● **Bold** Character Formatting	**Created: 110000Z Aug 90**
Data-Entry Field	● "Sunken" Appearance ● Normal Character Formatting	**UTC:** XWQAB

5.3 Processing Procedures

This set of subparagraphs provides detailed information on the RDA functions, menus and screens.

The RDA functions include:

- OPLAN Text Maintenance (5.3.1.2.1);
- Update OPLAN from TUCHA (5.3.1.2.5);
- Duplicate (copy) ULNs, CINS, and PINs (5.3.8);
- Merge PIDs (5.3.1.2.4);
- Add ULN(s) to PID (5.3.11.1);
- Add CIND and PIN record(s) to TPFDD (5.3.11.2);
- Edit ULN(s), CIN(s), and PIN(s) in TPFDD (5.3.8);
- Renumber (5.3.14);
- Tailor force cargo (5.3.7);
- Conduct range Updates of multiple ULNs, CINs, PINs 5.3.12);
- Display ULNs, CINs, PINs (5.3.6, 5.3.7, 5.3.15);
- Add standard unit type codes (UTCs) to TPFDD (5.3.7);
- Add non-standard UTCs to TPFDD (5.3.7);
- Support Automatic date change (5.3.5); and
- Produce reports (5.3.17)

The following paragraphs describe the specific software capabilities for each RDA function listed in subparagraphs 5.2 above. Graphic displays of menus and windows associated with the described function and the transactions or processes that is available to the user are referenced in the text and provided in Appendix B. Step-by-step instructions to support users performing selected processes to accomplish the various tasks to be performed. Button actions are described only in amplification of the description given above.

5.3.1 Plan Maintenance/RDA Main Menu

The first set of windows begins with the RDA window (see Figure B-1). This window permits the user to navigate to all RDA functionalities, from initial fill of a TPFDD, to modifying all or specific records, to displaying timelines, or to deleting the contents of a TPFDD. The user can select the functionality desired by clicking on the menu bar buttons (RDA, SELECTED, VIEW REFERENCE FILES, and HELP). Figure B-2, RDA Main Menu, illustrates the pop-up windows which appears when any of the functions on the RDA Main Menu bar are chosen. These pop-up windows allow the user to select additional specific functionality required.

The top right corner contains a field called Selection Date/Time. It is the date/time stamp that the user last queried the database for the list of OPLANs displayed in the center box. It is the date/time stamp, that along with the USERID and PID, is used to define and build a collection for the user.

The main area of this screen consists of a box that contains a list of OPLANs that the user can query and access. All fields displayed can be queried to narrow down the list. The fields are:

PID	-	OPLAN ID
Title	-	Title or Name of OPLAN
Class	-	Classification of OPLAN (Unclassified, Top Secret, Secret, or Confidential)
Access	-	Normal or Restricted
Distribution	-	Local or Distributed
Type	-	Exercise (Exer) or Real World (Real)
C Day	-	Date of C Day
Status	-	Locked or Unlocked

Wildcard or full field queries can be done the same way on all fields except the C Day (it has special formats that will be described later). To perform a full field query, press Plan Selection Criteria, type in a search value, and press Execute Selection. To perform a wildcard query, press Plan Selection Criteria, put a colon in the field to search on, type in the search value, append and/or prefix the value with percent sign(s), and press Execute Selection. For example, to query all local plans, type :l% or :L% in the Distribution field and press Execute Selection. Range selections are also possible. To find all OPLANs between 1000 and 2000, type :1000%-2000% in the PID field and press Execute Selection.

The C Day field has four defined formats for querying. They are: m/d/yy, ddmmmyy HHMMZ, ddmmmyy, and dd-mmm-yy. These predefined formats don't accommodate wildcard (%) queries, however, full format range queries are possible. For example, to query all OPLANs whose C Day fell between January 1, 1995 and March 31, 1995, type either :1/1/95-3/31/95 or :1Jan95-31Mar95.

To get out of the RDA System, click the button marked “Exit.” This will put the user back to the Main JOPES screen.

The following paragraphs explain the uses of each set of buttons shown on Figure B-19, Editor Menu.

5.3.1.1 RDA (Select PID)

The initial RDA window (see Figure B-1, RDA Main), contains a list of OPLANs. The user may scroll through the list (using the scroll bar located at the right side of the RDA screen) until the OPLAN the user desires is presented on the screen. The user then selects the PID by highlighting that particular OPLAN using the mouse.

The user also may search for a PID by clicking on the Enter Selection Criteria button at the bottom of the window or from the RDA pull down menu. A window in which selection criteria may be entered is then presented. It is the same as Figure B-1, but without OPLAN entries. There is a capability to user wildcards. The "%" value in any field, along with the desired alphanumerics, allows retrievals with any alphanumeric values where indicated. This capability may be implemented by prefacing the field with a colon then the alphanumeric value and %; for example, a :15% entry will retrieve all PIDs beginning with 15. Click on "Execute Selection" and PID(s) qualifying will appear. Then follow the process as outlined above.

The RDA Menu Bar provides the following capabilities (see Figure B-2, RDA Main Menu):

RDA	Provides option to exit RDA.
SELECTED	Provides options to view/conduct operations of selected PID, i.e., view Plan Summary, Copy Plan (Note: The "COPY TO" plan must have been initialized through the IRM system. See Other Applications), Edit PID, Compare two plans, Merge Plans, and Update a PID using the TUCHA database.
VIEW (JOPES) REFERENCE FILES	Provides access to the PID independent reference files.

5.3.1.2 Selected PID Operations

This button contains activities which pertain to the whole PID. These activities are listed below:

- Retrieve the selected OPLAN Summary and Text Fields;
- Edit the selected TPFDD;
- Compare two OPLANs;
- Merge two OPLANs; and
- Update PID from TUCHA.

The user may obtain a summary of the OPLAN by clicking on the Summary button. The system has the ability to compare two OPLANs by clicking on the Compare Plans button. The user can also merge two OPLANs by clicking on the Merge Plans button. (Note, the last two functions require the selection of more than one OPLAN from the OPLAN list.)

5.3.1.2.1 Plan Summary

The user may retrieve summary information from the database by clicking on the Summary button after the TPFDD is selected. Displayed information consists of the PID number, Title (if available), Classification, number of ULNs, CINs, PINs, Force Modules (FMs), C-Day/L-Hour (if established), Plan Type, current TUCHA date, Date of TUCHA Update, Originator, and the Host Site. Also displayed are the number of distinct GEOLOCs and total cargo/PAX for requirements where the mode of the strategic leg is sea or air and the unit is not in-place or on-call at POD. See Figure B-3, Plan Summary. The only data entry fields in the Plan Summary are the Title, Description, Objective Area, Mobilization Required, Mobilization Lead Time, and Classification (if the user is also the originator of the plan). Updating capability for the various editable fields are supported by overwriting and the Edit capability on the Menu Bar.

From this first summary screen the user can view further details of the Lift Requirements listed by source by pressing the "Expand" button and selecting either Sea or Air. See Figure B-4, Air Lift Requirements and Figure B-5, Sea Lift Requirements.

When the user is done making changes and presses the Apply button, the changes will be sent to the database. For the other pop-up windows, all changes will be applied to the database and the window popped down when the user presses OK. If the user wishes to abort the changes, on any window the Cancel button may be pressed.

The Plan Summary Menu provides the following capabilities (see Figure B-6, Plan Summary Menu):

RDA	Duplicates push buttons on the bottom of the window and provides option to return to PID selection.
EDIT	Provides usual editing capabilities (i.e. cut, copy, delete) to the text fields.
EDIT PLAN Information	Provides access to text fields on Mission, Condition for Implementation,Narrative on Objectives, Key Assumptions, Critical Resources, Concept of Operations, Unit Supply Shortfall, Operational Constraints, Non-unit Resupply, Non-unit Related Personnel, Major Forces, Supporting Commanders, and Supporting Plans.

Push Buttons:

EXPAND	Provides access to view allocation of cargo assignments to mode/source entities.
CANCEL	Closes the window and returns to the RDA/PID selection window. Database is not updated by this action. To update, use the Apply button.
CLOSE	Closes the window and returns to the RDA/PID selection window. Database is not updated by this action. A warning pop-up window is displayed. To update, use the Apply button.

The following information pertains to the text fields under the EDIT PLAN Information portion of the menu bar.

a. Plan Information. This functionality provides for the following:

   By choosing Supporting Commanders (see Figure B-7, Supporting Commanders) or Supporting Plans (see Figure B-8, Supporting Plans), the user can add or delete Supporting Commanders and/or Plans; and

   By choosing any of the other options (for example, see Figure B-9, Mission), the user can also import/export ASCII text concerning mission information, key assumptions, constraints,

concept of implementation, and major forces. etc. Once imported the data can be updated and stored in the database.

b. EDIT Capability. This capability is available for text sub-windows. Figure B-10, Text Menu, illustrates the menu bar. The text fields may be edited by two methods.

1) Allowing the information to be created or modified on an external system via a word processing system and then transferring the information via an ASCII file to the appropriate location.

2) Editing the existing fields:

- Cut text from an OPLAN,
- Copy text from an OPLAN,
- Paste Text from an OPLAN,
- Clear text from an OPLAN, and
- Delete text from an OPLAN.

c. Push Buttons on the entry windows:

OK Updates the database and returns the user to the Plan Summary window.

Cancel Does not update the database; returns the user to the Plan Summary window.

5.3.1.2.2 Plan Copy

This choice allows a user to copy information about an OPLAN into an already existing empty OPLAN. This copy includes the OPLAN narrative, summary, requirements, and force modules. It doesn't include S&M data.

Plan copy is not presently available. Use the Copy to Target functionality discussed under Marked Record Editing or Force Module Edit.

5.3.1.2.3 Plan Compare

RDA Compare compares designated fields between two PIDs. The designated fields are from both force (level 2 and 3 only) and non-unit entries The user may choose a "Full Compare" of ALL fields between the two PIDs, or a "Selective Compare" in which the user may choose any combination of fields from ten groups.

The first window (Figure B-11, Compare Plans) has three sections. The first section provides for selection of the second PID. The "Records to Compare" selections limit the records that the user will compare between the two PIDs, and the "Fields to Compare" selections limit the actual fields (in the tables) that the user desires to be compared between the two PIDs chosen.

The "Records to Compare" section allows the user to select and compare RECORDS common between the two PIDs. The default is to compare ALL Records between the two PIDs. However, records may be selected

based on Service and/or Providing Organization for each category (Force, Cargo and/or Personnel) by picking the Selected button.

The Force Elements are contained in the first four groups, the next three groups are non-unit Cargo, and the last 2 groups are non-unit Personnel related fields. These selections are shown on the "RDA: Selected Compare Fields" window (the window that pops up when the "Selective Compare" button is picked). Once the user has selected the fields desired to be compared between the two PIDs, the system return to the "RDA: Compare Plans" window.

GENERAL PROCEDURES TO OPERATE THE APPLICATION

The default PID #1 value is derived from the RDA window selection. The PID #2 value may either be entered or taken from a Pick List Box obtained by clicking on the "..." button ("RDA: Select PID" window).

The user has pairs of radio buttons that correspond to either ALL or Selected options for either the "Records to Compare" or the "Fields to Compare" options. Any "Selected" button will pop-up another window, so that the user may choose record search criteria or fields to be compared. For example, the "RDA: Select Forces," "RDA: Select Non-Unit Cargo," or the "RDA: Select Non-Unit Personnel" window pops up when the user selects the "Selected" button in the "Records to Compare" section.

The actions caused by the buttons corresponding to Force, Personnel and Cargo on the "RDA: Compare Plans" window allow the search for Requirement IDs that are exclusive only to PID #1, exclusive only to PID #2, and common to both PIDs.

The three list boxes, that appear in the second window of RDA Compare, Compare Results, correspond to Requirement IDs (Force, Personnel, and/or Cargo) that are found only in PID #1 and Not in PID #2, found in PID #2 and Not in PID #1, and found in Both PID #1 and PID #2. These list boxes are read-only.

Once the user selects the "Generate Report" button on the "RDA: Compare Results" window, RDA Compare will then use the Requirement IDs displayed in the list where Requirement IDs are common to BOTH PIDs. As soon as RDA Compare is finished populating this table, the "F52" Report generator is activated. There will be a pop-up window asking whether the user wants to route the information to the screen, file or printer.

DETAILED USER PROCEDURES TO ACCOMPLISH THE PROCEDURES

Pressing a button with three periods on it (...) will cause a list of items to put into a list box. This button is located to the right of the PID #2 entry widget on the first windows, as well as for every group selection list box in the "RDA: Selected Compare Fields" window (see Figure B-12, Selected Compare Fields).

The user has, as default, four pairs of radio buttons on the first window, each pair of buttons (Force All or Selected, Non-Unit Cargo All or Selected, Non-Unit Personnel All or Selected, and Full/Selective Compare buttons) toggle like radio buttons normally should. If the user decides to bring up a selective option window, and then cancels out or chooses nothing, the system will default back to the ALL option.

All Pick List boxes have multiple-select capability. The user may either click-and-drag the mouse for multiple selections, or single-click while holding down the "Ctrl" key. Toggle selections by clicking in the

same manner as a check button. The read-only list boxes for the "RDA: Selected Compare Fields" (Figure B-12) window can only be altered by going through the Pick-list box on the "RDA: Group Fields Select" window (Figure B-13, Group Fields Select) (triggered by clicking on the "..." button next to each Group Element List box). If the user wants to clear out the Group list box, select nothing in the pick-list box, and then click on the "OK" button. Note, the user MUST click on the check button (next to the upper left corner of each Group List box in the "RDA: Selected Compare Fields" window) for a given group, for a compare to be performed for the selected fields in that group. The user then finally commits all groups selected for comparing by clicking on the "OK" button in the "RDA: Selected Compare Fields" window.

Once the user comes back to the "RDA: Compare Plans" window, all of the group field selections are stored until the user gets to the final stage of RDA Compare which is when the "Generate Report" button (on the "RDA: Compare Results" window) is pressed.

5.3.1.2.4 Plan Merge

RDA Merge essentially copies movement records in one to another PID. The movement of data is from a source PID to a target PID, to include all force, Non-Unit Cargo and Non-Unit Personnel tables. However, the FM information is not currently processed in the RDA Merge application.

GENERAL PROCEDURES TO OPERATE THE APPLICATION

The user can either choose Automatic handling or Manual handling options (see Figure B-14, Merge PIDs). If the user chooses Automatic, then there are three choices that can be made for duplicate Req. IDs between the two PIDs. (Note: Duplication handling is needed because Requirement IDs could be found in both PIDs, and therefore, we cannot make these assumptions automatically without first asking the user beforehand... regardless of whether a Manual or Automatic merge is executed.)

The choices for Duplication handling (in Automatic Merge) are:

a. "Replace Target with Source" - RDA Merge will first delete all duplicate records found in the target PID and then proceed to copy all records (at the PID level) from the Source PID to the Target PID.

b. "Keep Target Requirement" - RDA Merge will first delete all duplicate records found in the source PID and then proceed to copy all records (at the PID level) from the Source PID to the Target PID.

c. "Renumber Source and Add to Target" - The Renumber ULNs, CINs and PINs application is called to ensure there will be no Requirement IDs that will overlap between the Source and Target PIDs. If the user attempts to run the Auto Merge (with duplicate Requirement IDs in either ULNs, CINs, or PINs), then a message will information the user as to how many duplicate Requirement IDs have been found. This will prompt the user as to which (Force, Cargo, or Personnel) category to renumber before executing the automatic merge.

If the user chooses Manual Merge, RDA Merge will count the number of duplicate ULNs, CINs and PINs between the Source and Target PIDs, and display them in the "RDA: Duplicates Encountered." All NOT

common to both PIDs are automatically merged beforehand. Thus, the steps below only pertain to the duplicates.

The three choices displayed for the user (in Manual Merge) are (found in the "RDA: Source Requirement ID Found in Target" window):

a. "Replace Target with Source" - Deletes from Target PID the Requirement IDs, (ReqID) and then copies all Requirement IDs from the Source to the Target PID.

b. "Keep Target Requirement ID" - Basically skips the duplicate ReqID found in the Source and Target PIDs. No duplicate ReqIDs are merged (copied) from the Source to the Target PID.

c. "Add Requirement ID to Target Using ID:" - The user must enter in a ReqID (in an entry box) that will be used as the new, unique ReqID that should NOT common to both Source and Target PIDs. If the user enters a ReqID that already exists, it will not be accepted and another attempt must be made. The only way the user can cancel out of this option is by pressing the "Stop Merge" button. This will cancel the Merge process for the Force, Cargo or Personnel Category merge that is executing. For example, if the user is manually merging the Force ReqIDs, then the "Stop Merge" action, will take the user directly to the Manual merging of the Cargo ReqIDs, and then the Personnel ReqIDs. The order of the Manual Merge Process (for duplicate ReqIDs) is ULNs, CINs and the PINs.

DETAILED USER PROCEDURES TO ACCOMPLISH THE PROCEDURES

Wherever the user sees a button with three periods on it (...), this signifies that this will load a pick list of items to put into a single entry widget (in the "RDA: Merge PIDs" window). The Target PID value may be loaded from the Pick list contained in the "RDA: Select PID" window.

Wherever the user sees a grouped box of radio buttons, they can assume that the buttons will toggle like normal. (Not more than ONE button in a group can be selected at ONE point in time.)

The "RDA: Duplicates Encountered" window displays the number of Duplicate ReqIDs found between the Source and Target PIDs. The buttons at the bottom of the window are:

"Continue Manual Merge" - Although the user recognizes there may be a number of duplicate ReqIDs that need to be manually resolved via a pop-up window called "RDA: Source Requirement ID Found in Target" (e.g., if there are 500 duplicates, then the user will be prompted 500 times to make a decision as to whether he wants to "Replace Target with Source", "Keep Target Requirement ID" or "Add Requirement ID to Target Using ID."

"Cancel Merge" - This button will cancel the merge process and take the user back to the "RDA: Merge PIDs" window.

"Go To Compare Function" - The user might decide that there are a lot of duplicate ULNs, CINs and/or PINs between the Source and Target PIDs. Therefore, a decision may be made to run the RDA Compare application. Pressing this button will pop-up the "RDA: Compare Plans" window.

5.3.1.2.5 PID Update from the TUCHA

To enter the Update PID from TUCHA application, select an OPLAN from the "Requirements Development and Analysis" main screen. Then click on the "Selected" menu option, and select "Update PID from TUCHA..." submenu selection.

This application then checks the OPLAN's "TUCHA" date and compares it with TUCHA's last update date. If they are the same, the user receives the message "Oplan Date is the same as the TUCHA update date! No updates required."

However, if the two dates are different, the application begins comparing the data for ULNs with a FIC of 0,1 or 2 to the data in the TUCHA tables.

There are three main categories that the application checks.

1. DELETED: Counts the number of ULNs that are using UTCs which were not found in the TUCHA table.

2. Changed: Counts the number of ULNs that are using UTCs which were found in TUCHA, but whose data does not match that found in TUCHA.
   Force Indicator Code (FIC) = 0: Application compares cargo and personnel
   FIC = 1: Application compares cargo only
   FIC = 2: Application compares personnel only

3. Canceled: Counts the number of ULNs that are using UTCs which were found in TUCHA, but have a status indication of CANCELED.

The application also checks for replacement UTCs for those UTCs that are canceled or not found in TUCHA. If replacements UTCs are available the user has the option to replace canceled UTCs with their replacements, or to keep the canceled UTCs.

VIEW OR PRINT REPORTS

When the "RDA: Update PID from TUCHA" screen pops up, only counts of the respective categories have been made. If the count for a category is "0" then its respective "View" / "Print" buttons are deactivated. Similarly, if there are no replacement UTCs for the entire OPLAN, the "View Replacements..." and "Replace if Available" buttons are also deactivated.

For those categories that have counts, the user can view a listings of the ULNs for that category with pertinent cargo / PAX data. See, for example, Figure B-15, Report -- ULNs with Deleted UTCs. The listings contain totals at the bottom reflecting the total error in cargo / PAX information resulting from the Deleted/Changed/Canceled UTCs. The user can also print the listings out to a local printer.

A listing of available Replacement UTCs and the UTCs they are replacing can also be viewed by clicking on the "View Replacements..." button.

PERFORM UPDATE

When the user clicks on perform update, the update is started.

ULNs with deleted UTCs are not affected by the update.

ULNs with changed UTCs are affected as follows:

- FIC = 0 Both Cargo and Pax information is copied over to the ULN from TUCHA
- FIC = 1 Cargo data only is copied from TUCHA to the ULN
- FIC = 2 Pax data only is copied from TUCHA to the ULN

ULNs with canceled UTCs are updated only if the "Replace if available" button is depressed. In this case the new (replacement) UTC is inserted into the ULN and its cargo and/or pax (depending on the ULNs FIC) are inserted into the ULN.

Finally, when the update is completed the OPLAN's TUCHA date is changed to the last update date of the TUCHA table, since the OPLAN should now be in synch with TUCHA. However, if replacement UTCs are available and the user selects "Keep Canceled" then the OPLAN's TUCHA date is NOT updated since the OPLAN could be updated to match data in TUCHA more closely.

Printing from within RDA is currently supported in the update PID from TUCHA section. When printing, the user will be prompted for the print string to be used for printing.

5.3.2 Reference File Viewing

This read only capability provides the user reference information from the JOPES non-TPFDD dependent tables as discussed below. The user clicks on the "View Reference Files" button and then the specific file to be viewed in order to view (read only) the following Reference Files. The possible reference files are APORTS, ASSETS, CHSTR, GEOLOC, GSORTS, PORTS, TUCHA, and TUDET.

The push buttons available vary depending on which reference file is being viewed. Three buttons common to all screens:

CRITERIA Clicking on the Criteria button allows the user to enter search criteria, narrowing the scope of records to be selected.

QUERY This button should be clicked on after the Criteria button - even if all records (no search criteria) are being selected. "Query" searches the database and displays all records matching the search criteria, if any.

CLOSE Clicking on this button closes the current window and returns to the "Requirements Development and Analysis (RDA)" screen.

Two reference files are presently available (GEOLOC and TUDET). Others will become available in future builds.

GEOLOC — The "RDA: View Geographic Location" screen (see Figure B-16, View Geographic Location) is the first and only screen when viewing this reference file. When the screen first comes up, an announcement explaining the Criteria and Query buttons appears. The user clicks on "OK" in the announcement, clicks on Criteria, enters search criteria (if any) in the top row of the display, and then clicks on Query. If any data is found to match on the criteria, the data is displayed. If there are no matches, no data is displayed. The figure shows what the selection criteria are for this file.

TUDET — The "RDA: View Equipment" screen (see Figure B-17, View Equipment (1 of 2)), is the first and only screen when viewing this reference file. When the screen first comes up, an announcement explaining the Criteria and Query buttons appears. The user clicks on "OK" in the announcement, clicks on Criteria, enters search criteria (if any) in the top row of the display, and then clicks on Query. If any data is found to match on the criteria, the data is displayed. If there are no matches, no data is displayed. For example, the first figure shows page 1 of the initial fill. The Figure B-17. (2 of 2) shows a selection criteria entry window.

Note that the RDA menu bar is available anytime RDA is operating. Windows in front may be moved to access the "View Reference File" button.

5.3.3 Editor

The purpose of the Editor is to access the capabilities to select records within a PID for review and/or editing and set up the (editing/viewing) display. The display shows the PID selected and the count of the ULN/CIN/PIN records available in the TPFDD as well as those selected by the user. Note that most of the actions are duplicated between the buttons and the menu bar.

To open the Editor screen, the user must start at the RDA Main Menu, and under the Selected button, select the Edit TPFDD button. Figure B-18, Editor, shows the Editor screen. The menu bar contains a variety of buttons, that when selected, bring up pop-up windows (see Figure B-19, Editor Menu) that provide the user options to perform tasks associated with record level TPFDD development and modification. In addition, there are buttons located on the left side of Figure B-19 that may be used. The Editor function permits the entry, display, printing and/or editing of required plan information from the previously selected PID. Note that some of the functionality is shown on both the pop-ups and the buttons on the Editor window. This is to enable the functionality to be available even if the specific buttons on the Editor window are covered.

Note that the rows and columns located on the lower half of the Editor screen (Figure B-18) are blank and will remain so until they are filled with data selected from the PID.

The next step for processing depends on the specific editing desired. Most activities will require the selection of PID records which is discussed in the next subsection. However, there are activities which have their own selection capability.

The Edit/View Record capability enables the user to select a requirement for individual operations. From the Edit option the user may choose the Edit Records submenu and pick either ULN, CIN, or PIN. A small

window will pop-up and the user can input a requirement that he wishes to view or edit. After pressing OK or Enter the requirement information will be displayed in the appropriate details window. This option allows the user to directly view information about a known requirement without having to build a collection or display timeline or cargo data.

Shift TPFDD Dates has its own selection capability as does FM Edits and Flow Analysis. Records may be created without using the Selection Function.

Menu Bar Actions. The following menu picks are available:

RDA	Provides option to return to PID selection and/or exit system. Duplicates the Close button.
SELECT RECORDS	Accesses the record selection process. The user has various options: e.g., Retrieve Records with identified fatal/logic errors, use established or new user defined queries.
EDIT	Sets up multiple record edit capabilities and record creation. Duplicates the Collection, Marked Records, FM Edits, and Marked State buttons. Includes Edit/View Records and Shift TPFDD Dates
CHOOSE DISPLAY	Provides capability to manage the display shown on the Editor Window, e.g., Timeline, cargo, flow analysis, and Map, and to select a Target PID. Duplicates the Target PID button.
REPORTS	Provides access to hard copy report capability. All PID records are considered. Reports available include BG - Requirements Detail, BH - F11D/F11E (JOPS), BI - Logical Error, BJ - Transportation Pre-Edit, F11D - Force List/Movement Requirements (part of BH), F11E(T) - Time Phased Transportation Requirements (Tons) (part of BH), and F11E(S) - Time Phased Transportation Requirements (Square) part of BH).

Edit/View Set Up Actions. Buttons not addressed above include:

- Validate RQMT Changes; Depressing this button will cause all applicable edit/error checks to be made when editing.
- Mark State; Button is not presently active.
- Select Requirements; Provides a capability to select retrieved records for Timeline display purposes.

5.3.3.1 Record Selection

This functionality permits the user to define the selection criteria for records in the identified PID to be selected for the collection. Also, there are pre-defined queries available. These selected records may be

added to or replace previously selected records. In addition, there are several standard, generic queries available.

5.3.3.1.1 Requirements with Errors

To be developed later. However, see User Defined Queries menus for present capability in this area.

5.3.3.1.2 Express Retrievals

To be developed later. This capability allows the user to obtain a collection of records for operation more quickly than by using the User Selected Retrievals capability. The user will be able to retrieve an entire PID, a specified FM, and records with certain error conditions.

5.3.3.1.3 User Defined Queries

Specific record criteria for retrievals may be developed or a previous, saved query may be used. Figure B-20, User Defined Queries, the first window viewed after selecting user defined queries shows those presently available. This area is where the interaction with AD Hoc queries appears. Pressing on Create New Query leads to the next activity. The discussion below addresses the creation of a new query. Queries may be stored for use later and are compatible with the storage characteristics of the Ad Hoc Query capabilities. They generally follow the Select Function window (see Figure B-21, Select Function - Main Menu). Procedures are as follows.

a. ULN/CIN/PIN These buttons are located in the upper-left corner of the Select window. They control the types of records which Select will query against. Each button has two states:

Depressed: Select will run against that type of record.
Not Depressed: Select will not run against that type of record.

b. Menu The menu portion of the window permits the selection of record retrieval criteria. Choosing one of the available menu options presents yet a more detailed menu for further selection. At the end of this criteria selection hierarchy is usually a data entry screen where the user either chooses specific data elements from a pick list or enters data manually. The current path through the menu hierarchy is recorded in the "Choices Made" list in the upper right corner of the Select window. There are several selection utilities, e.g., Select GEOLOC, that are useful for determining values. These are found in Appendix D.

To access each function, push the radio button located next to it. There will be additional pop-up windows to help the user select the record criteria. For example:

- Force Modules Allows the user to select specific Force modules. See Figure B-22, Force Module Menu.

- Attributes — Displays many sub-menus which apply to every aspect of the make-up of a ULN/CIN/PIN. An example of the selection hierarchy is shown in Figure B-21, Select Function; Figure B-23, Attributes Menu; and Figure B-24, Cargo Attributes Menu.

Some of the buttons are color coded. These color codes are carried forward to the Timeline display:

- Magenta = Origin,
- Orange = POE,
- Purple = Intermediate Location (ILOC),
- Yellow = POD, and
- Turquoise = Destination.

Underneath these buttons are selection criteria as shown in Figure B-25, GEOLOC Installation Type and Figure B-26, Mode/Source Menu.

c. Current Selection Criteria: This area is in the center right portion of the Select window. It's purpose is to store selection criteria from the Menu. It consists of three columns (Property, Condition, and Value) and twenty lines. Each line contains information about one traversal through the Menu hierarchy.

The Property column describes which database element is being accessed. The Condition column of buttons allows the user to choose the operation to be performed on the data described in the Property column. If the Condition requires data, the Value column for that line will be activated and will display the specifics of the criteria selection.

The option buttons in the Condition column can also be used to insert blank lines, delete lines, and to insert OR statements between lines in the Current Selection Criteria.

Multiple values must be comma separated.

d. Options available under each Condition button:

equal (=) - 1 value required
not equal (!=) - 1 value required
like - 1 value required
not like - 1 value required

The 'like' and 'not like' operators allow wildcard searches with the standard ORACLE wildcard characters:

% (percent) - any number of characters
_ (underscore) - a single character
in list - 1 or more values allowed
not in list - 1 or more values allowed

The 'in list' and 'not in list' operators permit multiple value searches:

between - 2 values required

The 'between' operator performs searches between the two named values:

less than (<) - 1 value required
at most (<=) - 1 value required
greater than (>) - 1 value required
at least (>=) - 1 value required
missing - 0 values allowed
not missing - 0 values allowed

The 'missing' and 'not missing' operators are intended for finding empty/not empty database elements.

e. Sort By: This area is in the lower right portion of the Select window. It's purpose is to store sort keys for the data. The user can have up to four sort keys and is able to choose either ascending or descending order via the "A-Z" buttons next to each sort key.

f. Line Color Codes: All Query and Sort lines are color coded. The color codes are as follows:

Dark Blue - current insertion point,
Light Blue - line is not in an error state, and
Orange - line is in an error state. Orange lines in the Query table are not used in the current query.

g. To change the current insertion point, click on a new line in the Property column (either the Query or Sort table).

h. Control Buttons: There are many control buttons located along the bottom of the Select window. The buttons located below the Menu are dynamic in nature; they are determined by the current Menu. Other buttons include:

Query Manager	The Query Manager Opens the SQL Viewer. It allows the user to save, load, and/or delete queries (see Figure B-27, Query Manager).
Count	The Count button counts the number of records the current selection criteria will retrieve. Results are displayed at the top of the "Current Selection Criteria" table.
Clear	The Clear button will clear all data from the current insertion point (the darker blue line)

Show SQL	The Show SQL button will display the SQL generated for the current selection criteria (see Figure B-28, SQL Viewer).
Apply	The Apply button will run the current selection criteria to generate a collection of REQIDs which can be used by the rest of RDA.
Cancel	The Cancel button will close the Select window and the Editor window re-appears. It is only visible from the Main Menu.
Next	TBD
Back	The Back button will redisplay the previous Menu in the current traversal hierarchy.
Accept	The Accept button will take values chosen from pick lists or entered manually and put them in the Value column of the current line of the "Current Selection Criteria" table.
Select From OPLAN	The SFO button gives the user a pick list of valid values from the database pertaining to the current menu traversal. This button is available from many different menu traversals, and it's exact contents are always determined by the current OPLAN.
Search For GEOLOC	The SFG button allows the user to choose GEOLOC codes from a more detailed screen.
Select Errors (SE)	The SE button allows the user to choose specific error codes from a full listing of codes used by the Verification Engine.
Select Warning Errors (SWE)	The SWE button allows the user to choose specific error codes from a listing of all Warning codes used by the Verification Engine.
Select Fatal Errors (SFE)	The SFE button allows the user to choose specific error codes from a listing of all Fatal codes used by the Verification Engine.
Arrow (right side of window)	Although not a control button, clicking on the arrow will "grow" the selection box.

5.3.4 Target PID Selection

The Target PID capability allows the user to select an existing PID that can be designated by the user as the recipient of Copy to Target operations and Merging operations.

From the RDA Editor screen (see Figure B-18, Editor), click on Target PID button and a new window, RDA: Target PID Select (Figure B-29, Target PID Select), will appear. Click on the PID desired. It will be highlighted. Now the RDA Editor screen will reappear, with the new entries made and shown in the upper right corner of the screen. See Figure B-30, Editor with Target. The user can select a different PID by clicking on the Select New Target button.

5.3.5 TPFDD Date Shifting

The purpose of this activity is to change key deployment dates on multiple records of a TPFDD using a base date from which the system automatically calculates other relative deployment dates. The adjustments to relative dates can be made automatically which maintain the relative date relationships, or can be made manually by the user, if the user specifies how many days that the base date is to be adjusted, upward or downward, for each user-specified requirement. The base date will be the previous date found in the requirement record plus or minus the specified number of days.

Available Actions. The following actions support this activity (see Figure B-31, Shift TPFDD Dates):

- Select Base (Deployment) Date (RLD for force only, ALD, EAD, LAD, or RDD). Click on Desired Base Date. Only one date may be selected.

- (Deployment) Date Exclusion. Click on Dates to be Excluded from the Update (can choose zero to multiple). The date selected as base date cannot be excluded.

- Adjust (Deployment) Base Date. Decide on Mode Table Use and click on appropriate button (Yes or No) and adjust the base date upward or downward as desired. This option allows the user to specify how many days that the base date is to be adjusted upward or downward for each requirement in the OPLAN that meets the user's data selection criteria. After this function completes changes, the base date will be the previous base date in the requirement record plus or minus the number of adjustment days. The other relative dates will then be adjusted in one of two ways. If the date change function is to use the mode tables, then the other relative dates will be changed to the difference between the new base date and the applicable value in the mode tables. If the user does not want the tables to be used, then the function will adjust each relative date in the same direction and by the same amount as the base date was adjusted.

Push Buttons:

- Selection Criteria. Click on Selection Criteria Button to pop up a window that allows the user to limit the TPFDD records affected by the update. See Figure B-32, Section Criteria. This button is optional and if no selection criteria is entered, all the records in the TPFDD will be updated. Each criteria selected is additive, i.e. criteria A and criteria B are applied, not criteria A or criteria B. The user can make selections on the following:

- Requirement Type (ULN, CIN, and/or PIN) - if RLD was chosen as the base date, only ULN can be selected. (default is ALL);

- Requirement ID Range (up to three ranges) - default is no ranges;

- Requirement Mode/Location - can select one or all of the following (default is ALL):
  Air moded with POE = CONUS;
  Air moded with POE = Non-CONUS;
  Sea Moded with POE = East Coast;
  Sea Moded with POE = Gulf Coast;
  Sea Moded with POE = West Coast;
  Sea Moded with POE = Non-CONUS;

- Service Codes - can select one to all Services (default is all Services);

- Force Module - can select one from list of available (default is all force modules); and

- Value of base date - only records with this base date will be updated (default is blank which means all base dates).

- Configure Mode Tables. Click on Configure Mode Tables to view or edit relative dates in the mode tables. See Figure B-33, Air-CONUS Mode Table. This is only useful if the user elects to use the mode tables to automatically adjust the relative dates as described in the next step.

- OK. Click on OK button to update the TPFDD deployment dates as specified and go to the View Transaction Messages window. This window allows the user to view three files that are output from performing the update date transaction. These files would inform the user of any records that were rejected and the reasons why.

- Cancel. Click on Cancel to cancel any changes to TPFDD deployment dates and return to Editor window.

5.3.6 Timeline Operations

The purpose of Timeline is to View and Edit Selected Requirements on a Time Dependent Display. At a glance, the user can compare the relative time phasing of selected requirements. Note that requirements must be selected before they are displayed. The following actions are available.

5.3.6.1 Select Requirements

Click on button "Select Requirements" (see Figure B-18) to inform Timeline which requirements in the collection should be displayed. The basis for the selection of requirements is the result of the user completing the Select Function and having requirements in the collection table. If the collection table contains fewer than

120 requirements all requirements in the collection will be eligible for display. If the collection contains more than 120 requirements, a window will pop-up listing all requirements in the collection. The user must choose a requirement around which the previous 40 and next 79 requirements will be eligible for display in Timeline. A vertical scroll bar is available to access all selected records. The selected requirements will be highlighted in black in the pop-up window. When the user clicks on the OK button, Timeline then retrieves all the information it needs about these 120 requirements and stores it into memory. Storing this information into memory allows Timeline to rapidly display data without having to retrieve it from the database each time it needs information about a requirement. Timeline will then display all of the requirements that were highlighted in the popped up window with the selected requirement at the top of the display (see Figure B-34, Timeline).

5.3.6.2 Timeline Scroll Capability

Standard scroll bars are available for both horizontal (C-Day) and vertical (record) movement. To view the 40 records above the selected requirement, click on the square with the "^" above the vertical scroll bar. To view the 40 records below the selected requirement, use the scroll bar. To view the remaining 40 records in the current retrieval, click on the square with the "v" below the vertical scroll bar. To retrieve a different set of 120 records, click on "Select Requirements" button. The timeline will always display requirements in the order that they were sorted in the Select Function.

5.3.6.3 Access "Choose an Operation" Menu

Click on the Requirement ID to access the "Choose an Operation" menu to initiate changes.

5.3.6.4 Clicking on Icons

Click on the ICONs indicating Origin (see Figure B-35, Origin), POE (see Figure B-36, POE), ILOC, POD (see Figure B-37, POD), or Destination or the lines connecting the ICONs to display associated data. Data can be modified by entering new data. In some cases, look up tables are available by pressing the "..." buttons to retrieve data. In other cases, utilities may be accessed for easier selection, e.g., Select GEOLOC. Clicking "OK" on the icon pop-up will update the database and close the window. Clicking on "CANCEL" will NOT update the database but will close the window. The following is an example of the operation.

Action Step	Result
1. Click on the Origin box (under the Ready to Load Date (RLD) area).	A pop-up window will appear (see Figure B-14. Origin), highlighting the Origin GEOLOC for this ULN and also showing the RLD date.
2. If editing is desired, the user inputs the new data in the window, and then clicks on “OK.”	Pop-up closes and the database is updated.

If the user does not know the correct GEOLOC for a location, click on the button to the right of the "Origin" window.	A pop-up window (Figure B-15) will appear called GEOLOC Select.
3. Enter any known data about the GEOLOC being sought, e.g., name, etc, and click on "Search."	If no match is found, the pop-up window, No Matching GEOLOC Found, will appear. Repeat the process until a satisfactory match is found.

By going along the timeline from left to right using the above method, each node and leg of the itinerary of this particular ULN can be edited.

5.3.6.5 Error List Box

Red or Yellow Flags are displayed if there are fatal or logical errors associated with the specific record. Click on the flag to obtain a listing of the errors(s) (see Figure B-38, Check Problems). Note: If the "Activate On-line Error Checks" button is not depressed (on), the error flag status may not be current. For example, a red flag may be displayed for a particular requirement, even though there are presently no fatal errors. In this case, clicking on the red flag would make it disappear, i.e., clicking on a flag automatically refreshes the error status. Results of data entry in the pop-ups are automatically checked and the Timeline display automatically is updated. It should be noted that errors may exist even with no flag showing if the "Activate On-line Error Checks" is off. By selecting the "Activate on-line error checks" button, errors will be updated the next time the timeline display is redrawn.

5.3.6.6 Mintimeline

This capability shows the whole itinerary of the movement of the designated requirement (see Figure B-39, MinTimeline.) Thus, if a blank row appears, this capability enables a display to be obtained with subsequent information to horizontally scroll to where it is displayed in the Timeline. It is accessed by clicking in a row where no Icon or link appears. The same capabilities for modifying data as for the basic Timeline display is available.

5.3.6.7 Timeline Display Window Size

Click on the square gray button on the Right Center of the Window above the Vertical Scroll Bar. The Timeline will fill the entire window. Clicking on the same button again will return the size to the initial display. Recall that most of the buttons that are hidden by this action are available under the Editor menu which is still accessible.

5.3.6.8 Zoom Capability

Click on and move the Zoom Slider at the bottom left of the window to vary the display size. When the slider is at 100 %, 5 requirements can be seen for 8 days in a very easy to read display. With the slider at 10 %, 40 requirements can be seen for 90 days in very small print. About double that number records may be viewed using the full window. Although it is not possible to read the values when using the small percentages, it does enable a view as to how the selected requirements line up as a function of time.

5.3.6.9 Symbols

Figures B-34 and B-39 show the shape of icons. The colors also define node (may be of use when using the zoom capability) as follows:

Color	Node
Magenta	Origin
Orange	Point of Embarkation (POE)
Yellow	Point of Debarkation (POD)
Purple	Intermediate Location (ILOC)
Turquoise	Destination

The lines connecting the icons are color coded to represent the mode of transportation between the locations:

Color	Mode
Blue	Air
Yellow	Land
Green	Sea
Gray	No transportation need or optional
Red	Unknown mode, error in mode, or illogical date sequence
Yellow Hash Marks	LAD falls before EAD

Other symbols are displayed to the left of the requirement values under the column heading "Symbols." Up to six may be displayed. These include:

Color/Symbol	Meaning
Red Flag	Fatal errors exist (see Figure B-34)
Yellow Flag	Logical errors exist (see Figure B-34)
Turquoise "S"	Shortfall
Purple "P"	Parent (PIC=A, P, or X)
Blue Telephone	On call (LAD or RDD = 999)
Downward Green Arrow	In place (Mode of Dest = Z) (see Figure B-34)
Blue Parachute	Airdrop Loading (Load Config to POD = P)

5.3.6.10 C-Days

If C-day has been assigned to a calendar day in the database then under each C or N day there would be a corresponding date MM/DD/YY. If there is no calendar day assignment the user may click on any C-day and a pop-up window appears. Here, the user may map a C or N day to a particular date. Clicking on the "OK" button allows the user to display the mapping on the Timeline. This mapping of a C or N day to a calendar date is for display purposes only, the database will not be changed.

5.3.6.11 Error Actions

Table 5.3.6.11, Errors, lists messages that may be seen in various pop-ups. Indicated action required also is shown.

Table 5.3.6.11-1. Errors

MESSAGE	INDICATED ACTION REQUIRED
There are no records selected. Choose pulldown menu “Select Records” prior to choosing button “Select Requirements.”	Choose pulldown menu "Select Records" prior to choosing button "Select Requirements.
Fatal warnings no longer exist. Red Flag will be deleted.	No action required.
MESSAGE	INDICATED ACTION REQUIRED
Logical warnings no longer exist. Yellow Flag will be deleted.	No action required.
Login id=false. Failed to login to database. Contact database administrator.	Contact database administrator.
Statement id=false ... Failed to prepare SQL statement. Contact RDA technical support.	Contact RDA technical support.
cursor id=false ... Failed to open SQL cursor. Contact database administer.	Contact database administer.
Can’t close an unopened cursor. Contact database administrator support.	Contact database administrator support.
Please choose only one selection. Automatically, the previous 40 and next 79 requirements will be loaded into memory."	Highlight only one requirement (select Requirements window).
Only RDD or LAD can be 999.	Invalid date for date type selected.
The plan XXXX is locked and it"s scheduling status is XXXX- mode cannot be set to "Z."	See the FDBM.
The POD, POE, Mode to POD, Source to POD, EAD, or LAD fields cannot be changed at this time because the database has been locked. Those fields will revert to the value they had when this window was first popped up. All other modified data will be written to the database.	See the FDBM.
Sorry you can"t change C-Day. C000 has already been assigned in the database to MM/DD/YY.	No action required.

Table 5.3.6.11-1. Errors

C-Day must contain an N or a C. Reenter C-Day value."	Enter relative date in correct (C/N) format.
C-Day must contain an N or a C followed by an integer. Reenter C-Day value."	Enter relative date in correct (e.g., CNNN) format.
Minimum C-Day is NXXX. Reenter C-Day.	Enter day later than the minimum.
Maximum C-Day is CXXX. Reenter C-Day.	Enter day earlier than the maximum.
MESSAGE	INDICATED ACTION REQUIRED
Calendar year must be a positive integer. Reenter C-Day value.	Enter calendar year in correct (YY) format.
Calendar month must be an integer between 1 and 12. Reenter C-Day value.	Enter calendar month in correct (MM) numeric format.
Calendar day must be between 1 and NN for month NN. Reenter C-Day value."	Enter calendar day in correct (DD) format.
CXXX is now assigned to MM/DD/YY. Note: Only the display is affected, the database has NOT been modified.	No action required.

5.3.7 Cargo Detail Editing (Level 1-4)

The purpose of this display and attendant actions is to review and tailor the cargo data for individual ULNs within an OPLAN. ULNs using standard TUCHA data can be viewed down to fourth level detail, and made Non-standard then tailored using the cargo editor. For Non-standard ULNs cargo data can be modified using the editor screens, cargo details can be added from TUDET, by selecting Equipment Indicator Codes.

The ULNs to be viewed and/or modified are selected and added to the Collection Table using RDA's Select function. To view cargo data for the selected ULNs, select "Choose Display" from the main menu bar, then click on the "Cargo..." menu-selection.

The Cargo Editor retrieves key information for all the selected ULNs. The application then retrieves the Cargo data for the number of ULNs specified in the "Display Buffer Size" and generates a cargo display for those ULNs. The default number of records retrieved is 30. This number is adequate to provide a full window.

5.3.7.1 Buffer Size

A capability to manage the number of records in active memory is available in the upper right corner of the screen.

Since the Collection Table could contain a large number of ULNs, only key information for the selected ULNs is retrieved into memory. The complete cargo data for a subset of the ULNs is then retrieved. The size of this subset is determined by the "Display Buffer Size" value.

A small buffer size operates much quicker than a large buffer size, since the application has less data to manage in memory, and fewer objects on the display page to move around. However, with a small buffer size when the user scrolls away from the current display area, the user is much more likely to encounter "blank space" where the user must then wait for the display to be reconstructed. Hence, if the user will be moving around between ULNs a larger buffer size may be preferable.

5.3.7.2 Scrolling

Users can use the scroll bar at the right side of the windows to scroll up or down to the desired ULN. Clicking the blue square button on the left side scrolls that ULN to the top of the display. As the user scrolls up or down to the desired ULN, the necessary ULN data for those ULNs inside the buffer area is retrieved and the ULNs that fall outside of the buffer area are dropped automatically.

When users are scrolling through a long list of ULNs they may encounter blank areas, where no data is being displayed, the HEADER bar changes to display the ULN that will be displayed at the top of the viewer if the user stops scrolling ant that point. The HEADER bar can thus be used to navigate from one ULN to another. Once the desired ULN is found, the user releases the mouse buttons and the application executes the database queries to construct the display for the ULNs in the display area.

The Display Viewer can be enlarged to the full size of the window by clicking the "^" button, located at about the middle of the right side of the window (to the right of the "Header Bar"). The edit cargo viewer can be reduced back to its original size by clicking on the same button (now located at the top of the screen).

5.3.7.3 Expanding/Collapsing Level of Detail

The ULN entries can be expanded into four (4) levels of entries for cargo details. Each level includes a set of symbols, displays different sets of data, some of which can be edited. The header information changes as the movement of the mouse passes over the different cargo levels. The level number is identified in the first column heading above the text area on the Cargo Editor screen. To expand the ULN to its next level of detail, the user can click on the "+" (Plus) symbol. If no lower level data exists for that record the Plus symbol disappears. To collapse the detail display and remove it from the display the "-" or minus symbol is clicked.

5.3.7.4 Editing Top Level Cargo Data

See Figure B-40, Editor at Level 1. As with the Timeline, the Cargo Editor allows direct access to the ULN Details screen, to edit ULN characteristics. The screen is accessed by clicking on the record's ULN number.

The following are the various symbols and data types, their functions and definitions for use in Level 1:

Colored Square	Causes the line to scroll to the top of the screen.
"+"	Expands this entry to show the next level of detail. This symbol will disappear if the symbol is clicked on and no detailed cargo data is contained in the next level.
CART Symbol	Takes the user to the CCC level of detail
N/S	Used to identify standard/non-standard "cargo" ULNs. S indicates those ULNs with a FIC = 0 or 1. When selected, the system converts a standard ULN into a non-standard ULN, copying the standard data for the ULN/UTC into the non-standard cargo tables. When changed to a non-standard ULN, the "S" becomes an "N" (in the column marked "N/S"), and the FIC code (shown in the column labeled "FIC") changes to a 2 or an 8.
SEQ#	This is the sequence number for the ULN in the present collection.
ReqID	This identifies the Requirement Identification (ReqID) of that movement requirement.
FIC	Shows the FIC for this ULN. If the FIC 0 or 1, the cargo data will reflect the Standard TUCHA file data and cannot be edited. If "S"(i.e., the user desires to change from standard to non-standard cargo) is selected, the FIC changes to a 2 or an 8, and the cargo data can be edited. If the FIC =2, 8, or 9, it changes to "N", the cargo data may be edited. If the FIC=7, the ULN is a parent record which should have zero values there is no cargo data.
Description	The force description it may be edited.
STONs	Weight in short tons of the ULN.
MTONs	Weight in measurement tons of the ULN.
PAX	Number of passengers requiring non-organic transportation in the ULN.

The following paragraphs discuss some of the points for this level of detail.

5.3.7.4.1 Standard vs. Non-Standard

If a ULN is using standard cargo, an "S" symbol appears in the top level display. If the ULN has been tailored and is using non-standard cargo an "N" is displayed. To convert a standard ULN to non-standard click on the "S." To convert a non-standard ULN to standard click on the "N." This latter action, with appropriate warning messages will delete the tailored cargo detail records, update the Level 1 and 2 information using TUCHA information, and change the FIC.

5.3.7.5 Level 2 Cargo Edits

When the "+" is clicked for a ULN displaying Level 1 operation, the Level 2 data appears under it, providing more information about the ULN (see Figure B-41, Editor at Level 2). The following describes the Level 2 symbols, data types, and functions/definitions for each of the entries:

"-"	Removes the current row (and all children/lower row entries) from the screen when it is clicked.
"+"	Expands this entry to show the next level of detail. The "+" disappears if it is selected, but there is no next level of detail.
UTC	Shows the UTC for this ULN. It can be edited however, only valid UTCs are accepted. See the discussion below for actions resulting from editing this value.
SVCR	The five character Force Description/Service Reserved field of the ULN. It can be edited.
UIC	The Unit Identification Code (UIC) for the unit sourced against this ULN, if any. If there is none then it will be blank. It can be edited.
UNIT Name	The actual unit name or the sourced unit"s name, if sourced. If it is not sourced, it"s blank. It can be edited.
BULK, Over, OUT, NAT S/T	Shows the short ton (STON) values. If these are a roll-up of lower, level details, they cannot be edited, since the cargo type is based on the CCC code.
ULC	The designation of the Unit Level Code (ULC) for this ULN. The ULC can be edited.

The user can change the UTC being used by a ULN. To change the UTC expand the ULN display to level 2, and click on the UTC for that ULN. This brings up the TUCHA select function, in which the user can enter query criteria to assist in selecting the new UTC.

Only the UTC itself is updated in the ULN record if the FIC code for the ULN indicates non-standard cargo. If the FIC code for the ULN indicates standard cargo, all pertinent cargo information for the new UTC is used

from TUCHA. In the case a non-standard, but valid UTC is entered (e.g., _99BB for this "S" record) in the TUCHA select window and "OK" is clicked, the user is warned that cargo information for that ULN will be deleted if the operation is continued. This action is required because there no longer is any linkage to cargo information. The "N/S" value is changed to "N." If it is desired to retain the cargo information, the "N/S" must be changed to an "N" prior to changing the UTC to a non-standard but valid value.

5.3.7.6 Editing Cargo Details

Standard cargo is not editable and an attempt by the user to edit standard cargo will result in the prompt to make the cargo non-standard. If the user clicks "Make NON-Standard" the required third and fourth level data is copied from TUCHA into the non-standard tables for editing.

5.3.7.6.1 Cargo Category Code (CCC - Level 3) Operations

When the "+" is clicked on the LEVEL 2 line, a third level of detail will appear (see Figure B-42, Editor at Level 3). This level lists all CCC"s for this ULN. This list is derived from either the TUCHA file (for standard ULNs), or from the non-standard cargo tables for non-standard ULNs. The FIC determines the source. The following paragraphs describe operations at the CCC level of detail. It should be noted that these operation over-ride and may cause Level 4 (Detail records) to be deleted. Specifically, if the CCC is deleted on changed, the Level 4 details are deleted. If the values within a CCC are changed, the level 4 details will remain, but are no longer valid. If the user makes changes at level 3, these changes are rolled up to Level 2.

The following describes the various symbols, data types and their functions/definitions, displayed for each CCC entry on the Level 3 Cargo Detail Operation:

"-"	Removes the current row (including all children and all lower row entries) from the screen when clicked i.e., it removes the CCC detail for this entry.
"+"	This will be the entry to show the next level of detail. It disappears when there is no next level of detail.
"D"	Deletes the row permanently confirmation requested.
"C"	Creates a new row (a new cargo detail entry) in the next level.
CCC	The Cargo Category Code for the entry.
STONs/MTONs/ square feet (SQFT)/ thousands of barrels (MBBLs)	Cargo values/rolled up totals from Level 4 cargo detail. Editing is possible only at Level 4 of detail.
Heavy LIFT	A description of the heavy lift and the code that gives the dimensions of this heavy lift. Can be edited.

The following paragraphs describe the activities for CCC level actions.

a. **Delete a Cargo Category Code (CCC) from a ULN**. To delete a Cargo Category Code from a ULN, expand the ULN display to third level detail, then click on the "D" icon for that CCC. This action will delete ALL LEVEL 4 Detail as well as the CCC from that ULN. The level 3 totals are recalculated and rolled-up to top levels.

b. **Create a new Cargo Category Code (CCC)**. Cargo Category Codes can be created from the ULN top level display, by clicking on the "cart" icon. The "RDA: Create Level 3 Cargo" window is popped up and the user can select the cargo type, extent and containerization (CCC). The user can also type in values for STONs, MBBLs, and select a Heavy Lift Code.

   When all desired data is entered, the user can click "Apply" to commit the data to the database or "Cancel" to revert the edit screen back to its original state without saving changes. Once the "Apply" button has been pressed the user can no longer "Cancel" the operation. The new CCC has been created, to remove it the user must use the "D" delete button.

   If the user attempts to create a CCC that is already in the ULN, a warning message results indicating that this action cannot be executed is issued and the user must select a different CCC.

   If level 4 details are added later, these (later) values are rolled up from fourth level detail replacing these level 3 CCC values.

c. **Edit a Cargo Category Code**. Expand ULN display to third level of detail, then click on the Cargo Type button (the icon displayed represents cargo type). This brings up the "RDA: Edit Level 3 Cargo" screen. The user can change the Cargo Category Code or modify STONs, MBBLs and Heavy Lift Code. If the user attempts to change the Cargo Category Code and the existing CCC has level 4 detail data, this (Level 4) data will be deleted. As with the create CCC function, if the user attempts to change the CCC to an existing CCC a warning is issued that this is not allowed.

5.3.7.6.2 Cargo Detail

Click "+" on Level 3 and a Level 4 entry will appear (see Figure B-43, Editor at Level 4). Level 4 lists all of the actual pieces of equipment or material from the higher level CCC entry.

The following describe various symbols, data types, and their functions/definitions for each entry:

"-"	If selected, this will remove the current row from the screen.
"D"	A permanent deletion confirmation will be requested.
"#"	A sequence number for the equipment types under each CCC.

Description	A description of the specific equipment it can be edited.
Length (LTH)/ width (WDTH)/ height (HT)	Dimensions of the equipment. It can be edited.
SQFT	Display only. (Length x width/144). It cannot be edited.
STONs	STON weight of equipment. It can be edited.
MTONs	MTONs resulting from the operation (cubic feet (CUFT)/40 cannot be edited.
PIECE	The number of pieces of this equipment can be edited.

The following paragraphs describe operation concerned with the lowest level of cargo details. Values in these fields will be rolled up to be used at all higher levels.

a. **Delete a Detail Cargo record from a ULN.** To delete a Detail Cargo record from a ULN, expand the ULN display to fourth level detail, then click on the "D" icon for that record. That detail record is deleted and all totals are recalculated and rolled-up to the ULN's top level.

b. **Create a 4th level Detail.** Clicking on the "C" icon at a level 3 record allows the user to create a fourth level detail. The "RDA: CREATE Level 4 Cargo" (Figure B-44, Create Level 4 Cargo) window comes up, and the user can manually enter the required data fields describing the cargo detail, or (if the CCC is found in TUDET) select an equipment type code from TUDET by clicking on the "ellipse" button, and entering the Equipment Indicator Lookup function.

The EIC lookup function presents a list of all the Equipment ID's with a cargo category code matching that of the level 3 parent record. If there are no equipment ID's with a matching CCC the Equipment Code select page will not pop up.

Once in the Equipment Indicator Code select function the user can enter query criteria to reduce the number of EIC's in the list, and look at an EIC's data by selecting it from the list. All pertinent data for the EIC is displayed. When the desired EIC is found, click on the "OK" button, all data for the selected EIC is transferred to the level 4 cargo page. The user is then prompted to enter a quantity for this cargo detail. To apply the data to the ULN, click on the "Apply" button.

If a required field is missing, a warning message is issued to the user to fill in the required data, and the cursor is placed in the field missing required data.

c. **Edit a 4th level Detail.** To edit a fourth level detail, expand to the fourth level detail and click on the record's "Description". The "RDA: EDIT Level 4 Cargo" window pops up, showing the current values of the cargo record.

Attempting to edit the Cargo Category Code will result in a warning indicating that the CCC is level 3 data, and to edit that data the user must go to the edit level 3 screen. The options available at this point are to go to level 3 or to cancel the operation.

The Equipment Indicator Code lookup function is again available, in case the user wishes to replace the entire record with a record from TUDET.

Again, if the user makes modifications at level 4, those changes are automatically rolled up to Level 3 and Level 2.

WARNING:

The functionality available allows the user to display and edit cargo details down to Level 4. After this information is committed to the database, it is rolled up to the summary level. Any data edited at Levels 2 or 3 will result in erroneous or misleading data. The record will be marked to indicate that the record(s) below the edited record (Level 2 or 3) is not available because of user modification.

Although the user can still modify the data, the functionality indicates that some detailed data is unavailable. If the user goes to Level 3 or 4, the roll-up will reflect that action.

5.3.8 Individual Record Editing

Access to the menu and the following record detail windows are available from several sources within RDA, e.g., Timeline, Edit Cargo, Editor menu button Edit. Note that some of these approaches do not require the Select Function to be executed.

The following subsection provides detailed information concerning editing individual records. The first subsection provides instructions common to all records. The remaining provides instructions for the specific types.

All operations start with the same window. It may be accessed by clicking on the Requirement ID displayed on Timeline or Cargo Editor display (see Figure B-45, Choose an Operation). Buttons not applicable to the ReqID are displayed, but "grayed out" and are not active.

5.3.8.1 General Operations

The following action starts this process.

Action Step	Result

User clicks on a ReqID (requirement) in the Timeline or the Cargo Editor.	Pop-up window will appear (see Figure B-45, Choose An Operation). Buttons whose options the user is not allowed to select will be inactive (not highlighted). Text indicating the ReqID number will be displayed along with the description next to each button.

The following are instructions to the user and may depend on whether the ReqID is "marked" or "unmarked."

Mark	If the ReqID is in the Collection and unmarked, this button will be active (lighted). Click on the mark button. The mark button will become inactive (not highlighted), and the Unmark button will become active.
Unmark	If the ReqID is in the Collection and marked, this button will be active. Click on the Unmark button. The Unmark button will become inactive and the Mark button will become active.
Remove	This button is always active if the ReqID is in the Collection. This operation removes the ReqID from the Collection. The Timeline display, Editor Summary, and number in Collection count are also updated.
Details	This will always be active.
Renumber	This option is to allow the user to renumber an existing ReqID. This button is always active. Click on this button for the RDA-Renumber ULN display to appear. Type in the new ReqID, and click OK. Now the display will change to indicate the renumbered ReqID. The user may now perform operations on the new ReqID. The Timeline display will be updated with the new ReqID (if it is in the Collection) button located on the bottom of the pop-up window. After the information is displayed, the user can edit or modify available information in any of the pull down/pop-up windows or in the original screen display of the record(s). The user will be asked to confirm information modified or edited. A "yes" response will commit the information to the database. The system will return to the display point at which the user entered the edit function and allow the user to advance to another desired function or to continue.
Duplicate	This option is for the user to create a new ReqID using the details of a ReqID already in the database. This button is always active. Click on Duplicate and the display a pop-up window. Type in the ReqID number and click the OK button. The Timeline display is updated with the new ReqID (if it is in the Collection). The Editor Summary of total ReqIDs and number in the Collection are also updated.
Delete	This button is always active. This operation will let the user delete the ReqID from the TPFDD by clicking on the Delete. The Timeline display is updated. The Editor Summary of total ULNs and the number in the Collection are also updated.

List FMs	This button brings up the "RDA FM Information" screen which is a list of all force modules for that requirement. If there are no force modules, this button is inactive when the Choose An Operation screen comes up.

The user is reminded that information from the reference files will be available through the use of additional windows. Most RDA windows may be iconified in order to access such capabilities as reference files without leaving the present RDA operation. For example, if a POE change is desired but the user does not know the four-character identifier, the user will be able to select the geographical portion of the reference file, enter the location name, and see the geographical information. From this display, the user will be able to select the desired identifier and then copy and paste the information in the appropriate area in the CIN window.

5.3.8.2 Error Handling

The error handling discussed below is concerned with activity on the requirement detail screens. Specific actions may be affected by the position of the Validate Rqmt Changes button on the Editor window. Error checking is done when the user hits enter after entering data into an entry field or leaves an entry field by moving the cursor. Error checking is also done after the Apply button is pushed.

If an invalid value is entered, an alert box is displayed describing the error. The user should then enter a valid value. After all data has been entered and the Apply button is pressed, changes are applied to the database. If for any reason the database cannot be updated or the transaction fails, none of the changes are applied and an error message is displayed.

5.3.8.3 Menu Bar/Push Button

The following describe the actions available under the Menu and Push buttons for the requirements detail windows (see Figure B-46, ULN Details; Figure B-47, CIN Details; Figure B-48, PIN Details; and Figure B-49, Requirement Detail Menu). Some may only be applicable to ULN operations.

Menu Bar:

RDA	To apply data input to screen windows, i.e., inserting or deleting routing stopovers, cancel input, print, exit, go back to main menu, or close the screen.
EDIT	Provides usual editing capabilities (i.e. cut, copy, delete) to the text fields.

Push Buttons: "Standard" buttons information is provided to indicate what window is shown next.

LAD/RDD ON CALL	Provide the data changes required on the selected record for these conditions.
REFRESH SQFT	Causes the Level 3 (database CCC details) values to be rolled ups for display.
APPLY	Updates the database. Window remains open.

CANCEL	Closes the window and returns to the Choose an Operations Menu. Database is not updated by this action. To update, use the Apply button.
CLOSE	Closes the window and returns to the Choose an Operations Menu. Database is not updated by this action. To update, use the Apply button. A warning pop-up window is displayed.

5.3.8.4 Individual ULN Editing

Clicking on ULN Details provides the following capabilities (see Figure B-46).

ULN Details allows a user to view and/or update all information about a ULN. This information includes unit data, routing data and cargo/PAX amounts. Updatable fields are depressed and normal text and non-updatable fields are not depressed and bold.

Unit information includes force description, unit name, UIC, reserved baseline, non-reserved baseline, POC, Service, PIC, FIC, UTC, ULC, project code, providing organization, SRC (TUCHA Doc number), GCC, COMPO, Service reserved, critical employment indicator, TUCHA indicator, and validation flags. The PIC can only be updated if the requirement is a parent already (a parent cannot be change to a non-parent and vice versa), The COMPO, GCC, SRC, and validation flags are view only. The FIC is also view only except that updates to PAX and Cargo amounts can change the FIC on the screen. The UIC (access to GSORTS Select), Service, providing organization, UTC (access to TUCHA Select), and ULC all have buttons that provide a lookup list for possible field values. Upon selecting a value in the list and closing the pop-up, the chosen value will be populated in the appropriate field. Changing a UTC will reset the FIC code to zero and delete any non-standard cargo records. The POC is not in the current distribution transaction (ULNUBT) and therefore will not be distributed to other sites with the rest of the ULN data.

The routing information area include all stops (Origin, POE, POD, Destination, and ILOC) currently created for the ULN and the associated mode, source, GEOLOC, etc. To update routing information, click on the desired Routing Stop. It will be highlighted. Then click on Update Routing button and choose the Modify Routing option. A window will pop-up with the appropriate fields for the stop. To delete an existing stop, select the row with the cursor, press the Update Routing button, and select Delete Routing. To create an additional stop, e.g., an ILOC, press Update Routing, select Create Routing, and traverse through the options until finding the appropriate stop. After selection the stop, a routing window will pop-up to allow entry of the routing data.

Both the Modify Routing and Update Routing windows contain the same structure and buttons. Certain fields are only available for certain stops. Origin stops can only contain data about the . POE stops only contain data about the , mode and source. POD stops only contain data about the mode, source, load configuration, discharge constraints, priority ID, and priority add-on. Destination stops only contain data about the , mode, source, load configuration, and discharge constraints. And ILOC stops only contain data about the , mode, source, load configuration, discharge constraints, days delay and whether the force is fully or partially allocated to the stop. The , mode and source, load configuration, and discharge constraints all have buttons that provide lookup lists of values for the fields. Upon completion of updates press OK to create the stop. The window will pop-down and the new stop will be displayed on the main page. However, no changes will actually be applied to the data base until the apply button on the first page is pressed.

Addition routing information includes the RLD, ALD, EAD, LAD, RDD, and CRD relative dates. These fields will accept input values in the format of -13, 14, C014, and N013. Values will be displayed as C014 and N013. Two button have been provided to toggle the RDD and LAD to on-call.

The value in the validation flag affects how some of the routing and cargo data will be displayed. If the SSF is Z (ULN is manifested) then the LAD, EAD, POE GEOLOC, POD GEOLOC, POD mode, and POD source will not be updatable. If the SSF is B (ULN allocated and manifested), T (ULN accepted by USTC for scheduling), A (allocated), M (ULN manifested), or V (ULN validated by supported CINC) then in addition to the above fields being inaccessible, all the cargo and PAX amounts and the UTC are not updatable either.

The cargo and PAX data is located on the bottom portion of the window. The fields include the authorized personnel, PAX, bulk, over, out, NAT STONs and MTONs, POL, SQFT and number of cargo category codes. Changes to cargo, POL, and PAX will update the FIC to a non-standard value if the value was previously a standard value. And if the cargo was standard the standard TUCHA records will be used to create new non-standard force records. The SQFT field is not updatable and because it is not in the current transaction (ULNUBT) used for distributing the data, it may not be current. Therefore, a Refresh SQFT button has be supplied to retotal the values when the data has been provided by an external system or another site.

5.3.8.4.1 Error Condition

A problem occurs when accessing the ULN Detail window if there is no access to GSORTS. This "GEL" error will not interfere with normal window operation. However, if there is an attempt to use the UIC look-up button, another GEL error will occur which prevents access to the GSORTS information.

5.3.8.5 CIN/PIN Detail Window

The purpose of the window is to update or review non-unit identification and routing data. The windows are similar and are discussed together below (see Figure B-47, CIN Details, and Figure B-48, PIN Details).

Update capability for the various editable fields are supported by the Menu Bar edit capabilities, by overwriting, and by access to look-up tables. Error checking is done when the user hits enter after entering data or leaves an entry field.

Update Routing is similar to the ULN Detail activity discussed above. To update routing data, click on the desired Routing Stop - it will be highlighted. Click on the Update Routing button. Click on Modify Routing. The "RDA: Modify Routing" screen will appear. Enter GEOLOC, Mode, Source data, and click the "OK" button. Or, click the "..." button as necessary when the value is not known to get a list of possible values and when done click the "OK" button.

To create routing data, click on the Update Routing button and then select the Create Routing menu option. Then select either the Create Normal Routing or Create ILOC option, whichever is desired. When selecting the Create Normal Routing option, four options become available: Create Origin, Create POE, Create POD, and Create Destination options. Any of the four Create options that are already have values will display as inactive and therefore cannot be selected. Select the desired option and the "RDA: Create Routing" screen

comes up. Enter GEOLOC and Mode/Source information as desired using the "..." buttons to list possible values if needed and click the "OK" button when done. When selecting "Create ILOC" from the "Create Routing" menu, another option menu appears with choices: Create ILOC Before POE, Create ILOC Before POD, and Create ILOC Before Dest. Select the desired choice and the "RDA: Create Routing" menu will appear. Enter GEOLOC, Mode, Source, Stop Reason, and Days Delayed as desired using "..." buttons as needed.

Fields available for viewing include the CIN/PIN being edited, date created, date the CIN/PIN was last updated, organization using the non-unit requirement, movement type, text description of cargo category codes, and supply class description (last two CIN only).

A number of data entry fields exist on the CIN Details screen. They are described below. Entry fields are easily distinguishable by their "windows" that appear. They are also adjacent to a label descriptive of the type of data that can be entered. For any field with an adjacent "..." button, clicking on the button will pop-up a list of possible values and then clicking on any row in the list will automatically insert the value into the entry field. Validation of all entry fields takes place at the point of entry. They include Providing Organization value, Project Code, ALD, EAD, LAD, RDD (remaining fields are applicable to CINs only), Supply Class code, cargo category codes, fuel type code, heavy lift code, STONs (based on CCC), the appropriate cargo STONs column becomes editable. All other STON columns are zeroed out and become non-editable, MTONs (based on the CCC). The appropriate cargo MTONs column becomes editable. All other MTON columns are zeroed out and become non-editable), POL (MBBLs), SQFT, GEOLOC, mode, source, a reason for the intermediate stop, and expected delay time in days of cargo at a particular intermediate location.

5.3.9 Split/Unsplit Shipments

The user has the ability to identify record(s) permitting split-shipment. The user can split a force record into personnel movement requirements (for air movement) and cargo movement requirements (for surface movement). This capability may be entered on either an individual basis (Figure B-45, Choose an Operation) or as a group (Figure B-59, Operations on Marked Records). The system:

- Allows the user to select the desired record(s) for split shipment by marking the desired record(s).
- Prompts the user to enter the desired information for the Aerial Port of Embarkation (APOE)/Seaport of Embarkation (SPOE) and/or the Aerial Port of Debarkation (APOD)/Seaport of Debarkation (SPOD).
- The user enters this data via a pop-up window that displays the record(s) selected.
- For Air: APOE, mode, source, load constraints, discharge constraints, APOD, Earliest Arrival Date (EAD), and the Latest Arrival Date (LAD) needed to complete the edit.
- For Sea: SPOE, mode, source, load constraints, discharge constraints, SPOD, EAD, and the LAD needed to complete the edit.

When the user is ready to commit the changes and split shipment information, the system will respond with a confirmation screen (which will identify the new force requirement number (FRN)/ULN(s) identified for the split shipments) and then will identify the changes made to the database.

UNSPLIT SHIPMENTS. The unsplitting capability allows the unsplitting of a cargo and sea requirement into one ULN.

Available Actions. The actions available to carry out this activity include the following:

- Choose template. Choose either Cargo sea or Personnel air template. Template chosen will be used in the creation of the new requirement and will use all non-cargo/personnel fields for the requirement.

- Do Unsplit Operation. Click on OK to perform the unsplit operation. One new requirement will be created, and the cargo and sea requirements will be deleted.

5.3.10 Force Record Fragmentation

The purpose of this activity is to fragment a ULN, or add inserts to a fragment.

Available Actions. The following actions are available to support this activity.

- Enter Number of Fragments. The fragment character will either start at A (on a un-fragmented ULN) or the next character after the last fragment character from the base ULN.

- Enter Number of Inserts. Enter a number between 0 and 33. Inserts will start at character 0 in the seventh position.

- Create New Requirements. The user does not directly accomplish this action. However, the following actions do take place. New requirements are either created from a non-fragmented ULN or a fragmented ULN. With a fragmented ULN, 0 can be entered for the number of fragments, with the number of inserts entry containing the number to add to the fragmented ULN. If one or more is entered for number of fragments for either option, the number of inserts entry contains the number per fragment created. All personnel and cargo data for all new fragments/inserts will be zeroed out in all but the first requirement generated).

- OK. Click on "OK" to create fragments and/or inserts.

The "New Fragments/Inserts" window will pop-up. The options "Add to Force Module" and "Details" are on this new pop-up, allowing a user to do Force Module Operations, or edit details of a ULN.

5.3.11 Record Creation

The purpose of this activity is to create new requirements. There are two basic operations; 1) creating ULNs and 2) Creating CINs and PINs.

Action Step	Results
1. The user obtains access to this functionality by the RDA Editor screen and chooses Create Records.	(See Figure B-18. RDA Editor.)
2. After the pop-up window Create Records appears, the user clicks on the applicable button.	(See Figure B-50. Create Records.)
3. Click on Close	Next window depends on type of record chosen (either Figure B-51, Create ULNs; or Figure B-53, Create CINs/PINs).

The following subsections discuss each.

5.3.11.1 ULN Creation

The purpose of this activity is to select the UTC and the Number of ULNs desired to be associated with that particular UTC.

Available Actions. The available actions associated with this activity include the following:

Action Step	Results
1. Click on ULN (Figure B-50) to bring up the RDA: Create ULNs.	See Figure B-51. Create ULNs
2. The user must now highlight one Service in the Service the pop-up window. (More than one can be chosen by dragging the left mouse button, or by using the Control key.)	The selected Service is highlighted.
3. Click on the ...button to the right of the UTC First Character	Pop-up window, RDA: Pick UTC First Character, will appear. This pop-up window contains the code (first character of the UTC), Service, and a description of the UTC category. This list will be restricted to the Service(s) selected. (Note if no Service had been picked the system will default to all of the Services)
4. Now the user must select the UTC First Character located just below the Service window.	A list of UTCs which belong to the Service and that start with the same character as the selection, will be displayed in the list to the right. The user can make a selection or enter a standard or nonstandard UTC in the box below.

Action Step	Results
5. The user must now select an entry, then click on the OK button or double click the list item. An entry will display the value chosen.	The selected UTC will be in the Selected UTC box.
6. Go to the entry box labeled Number to Create located at the lower left corner of the pop-up window. Enter the number of ULNs to create.	Desired number of ULNs to create is entered.
7. Add to Collection. Default is on. If do not desire in Collection, change.	Results of decision to add (or not add) to Collection.
8. Click on button labeled Create ULN IDs, located at the bottom left corner of the pop-up window.	A new pop-up window, RDA: Create ULN IDs appears (see Figure B-52, RDA Create ULN IDs). If the operation is canceled by clicking on the cancel button on the bottom, this window will be killed. The entry labeled Number of Records to Create located in the top left corner of the new screen will give the user the number entered on the previous screen. In addition, the UTC chosen will appear in the area just below this, entitled Based on UTC. Just below this area on the pop-up window, is a work area entitled Numbering Style, with a series of radio box buttons arranged vertically.

Additional window explanation is given below.

- Numbering Style
  - Sequential ULNs: Allows the user to enter a seed value that is used to generate ULN values numbered sequentially starting in the last indicated position (must be position 5 or less)
  - User Input: Allows the user to enter ULN values selectively. The default list starts from "AAAAA" and is numbered sequentially.
- Seed Value. For sequential ULNs; enter a valid ULN value. For user input; enter a valid ULN value for the specific selection.
- Check for Conflicts. Press the "Check For Conflicts" button. Valid IDs are ULNs which do not exist in the plan being worked on These are shown to the top right. Conflicting ULNs are ULNs already existing in the plan being worked on These values are shown to the bottom left.

- Convert Selections to Parent ULNs. If Valid ULNs exist, they may be converted to parents. Click on "Convert to Parent" button, after selecting one or more parent codes. Click on "Ok" to accept parent type. Parent type can be "A", "P", or "X." Blank is the default, i.e., non-parent.

- Accept Valid ULNs. Click on "OK" to accept valid ULNs. A pop-up will be displayed showing new ULNs created. The options "Add to Force Module" and "Details" are on this pop-up, allowing a user to do Force Module Operations, or edit details of a ULN.

5.3.11.2 CIN/PIN Creation

The purpose of this activity is to create non-unit records. Pressing CIN or PIN shown in Figure B-50 will display Figure B-53, Create CINs/PINs. The following actions then may take place.

- Choose either CINor PIN.

- Choose Using Organization and Type of Movement. Enter one character codes for Using Organization and Type of Movement or select from a pop-up list of valid values.

- For CINs only: Enter Cargo Category Codes for Type, Extent, and Containerization, or select from a pop-up list of valid values.

- Enter Number To Create (between 1 and 99).

- Select Add To Collection Check Box (Optional, Default is on). By setting this box, all records created during the current session will be added to the collection.

- Click on "Create CIN/PIN IDs..." button to display the window that allows the selection of CIN or PIN values to be created. This action results in the display of the numbering window.

The purpose of the window which is similar to Figure B-52 is to number one or more CINs or PINs.

Available Actions. The following actions are available through this window.

- Enter Numbering Style. There are two options. Remember that the first two characters of the starting value in this list is forced to the Using Organization and Type of Movement entered previously.

  - Number CINs/PINs. Allows the user to enter a seed value that is used to generate CIN/PIN values numbered sequentially starting in the seventh position.

  - User Input. Allows the user to enter CIN or PIN values selectively. The default list starts from, e.g., AR00001, and is numbered sequentially.

- Enter Seed Value. Enter a valid CIN or PIN seed value or the actual value desired for a single CIN or PIN value. To accept values, use the Enter key.

- Check for Conflicts. Press the "Check For Conflicts" button. Valid IDs are CINs or PINs which do not exist in the plan being worked on, and will be shown to the top right. Conflicting CINs or PINs, are CINs or PINs existing in the plan being worked on, and will be shown to the bottom left.

- Accept Valid CINs or PINs. Click on "OK" to accept valid CINs or PINs. A pop-up window will be displayed showing new CINs or PINs created. The options "Add to Force Module" and "Details" are on this pop-up, allowing a user to do Force Module Operations, or edit details of a CIN or PIN.

5.3.12 Range Changes

Range changes are accomplished in several areas of RDA: Changes on the entire Collection (see Figure B-54, Collection), changes on Marked records within the collection, and changes within force modules. This subsection discusses changes using the collection obtained under the Select Function capability. Basic to both the Collection and Marked Record editing are the ULN, CIN, and PIN Details Template. See Figure B-55, ULN Details Template; Figure B-56, CIN Details Template; and Figure B-57, PIN Details Template. This capability will be discussed first, then the unique capabilities between the Collection and Marked Records will be discussed. Then the capabilities for the entire collection is discussed followed by the Marked Records.

5.3.12.1 Available Actions

Updating capability for the various editable fields in the templates are supported by the Menu Bar edit capabilities, by overwriting and by access to look-up tables. The following buttons are available to update force, non-unit characteristics, and routing information for all record types.

RDA	Apply data input to database, cancel input, print, exit, go back to main menu, or close the screen.
EDIT	Provides usual editing capabilities (i.e. cut, copy, delete) to the text fields.
Routing Data	Click on the desired entry point and enter desired values. To create an ILOC, Alt ports, and add/modify POS (ports of support) (Alt ports and POS applicable only to ULNs) click on Routing Data button. Follow instructions. To delete an ILOC, click on the ILOC Routing Stop. Then click on Routing Data button. Appropriate pop-up windows will be accessible for deletion purposes.

Nodes may be added. However, nodes other than ILOCs may not be deleted. The contents of all nodes may be changed under this capability.

... buttons (next to data entry fields): To provide (look-up capability) valid code and name values for the adjacent data element. Some routing entries (columns to the left of Priority Add-on) have lookup capabilities. If the cursor is placed in an entry in the routing table which has a lookup, the "..." button to the right of the routing table will be activated.

CLEAR ALL — Clears all entries in the window of data.

CHANGE ALL — Changes for all applicable ULNs are applied to the database and the user is returned to the Collection or Operations on Marked Records menu.

EDITS... — The Preview Edits window is displayed, permitting a review of the edits made on the template to the individual ULN/CIN/PIN. See further discussion below.

CANCEL — Closes the window and returns to the Collection menu or Operations on Marked Records menu. Database is not updated by this action.

Manual Entries

... BUTTONS — Located next to data entry fields, provides (look-up capability) valid code and name values for the adjacent data element. All manual entries with "..." lookup buttons will be checked against the database once the data has been changed. Only values which pass this lookup will be accepted as valid.

All STONs numbers entered will be converted to floating point with 1/10 unit precision.

All MTONs numbers entered will be truncated to integers.

5.3.12.2 Preview Edits

See Figure B-58, Preview Edits. This window is available from any Template Window (ULN/CIN/PIN). It is provided in conjunction with an individual ReqID window, which is dependent on the record type. The buttons provided cause the following to occur.

Marked Status — Allows the user to change the marked status of a record

Show Edits — Allows the user to apply the Template edits to the individual record currently being displayed

Skip Edits — Skips the current record without updating database.

Accept Edits	Updates the database with the current record information and displays the next record in the sequence.
Do Rest	Applies the Template Edits to the rest of the records in the sequence.
Close	Close the window without updating the database.

5.3.12.3 Error Checking

Error checking is controlled by the button on the Editor Window.

5.3.12.4 Entire Collection Editing

A user who has completed a requirements collection via the selection and sort capability will be able to choose to edit the collection. This edit is dependent on record type. ULNs, CINs, and/or PINs may be edited in turn using the applicable template. The system will verify what types of records are in the collection. This verification will determine the actions for editing the entire collections. Detailed instructions to the user on the use of the ULN Details Template are similar to those for the Edit Individual ULN Details discussed earlier. The major difference is in the handling of the routing information. The data boxes are directly accessible in the templates.

5.3.12.5 Marked Record Editing

Editing marked records (ULNs/CINs/PINs) is similar to editing an entire collection of records, with the following exceptions. The user will be able to specifically mark or unmark desired records to support operations discussed below (see Figure B-59, Operations on Marked Records).

The following describes the actions associated with the menu picks. The actual action is covered under the specific capabilities discussed elsewhere (e.g., split/unsplit shipment capability is discussed in the subsection by that name) in this document:

Unmark All	Unmarks all ULNs, CINs, and PINs currently in the collection.
Mark All	Marks all ULNs, CINs, and PINs currently in the collection.
Toggle All	Toggles the marked state of all ULNs, CINs, and PINs currently in the collection. Marked become unmarked, and unmarked become marked.
Mark Inserted	TBD
List	Lists all marked ULNs, CINs, and PINs currently in the collection.
Delete	Deletes all marked ULNs, CINs, and PINs currently in the collection from the OPLAN.

Remove	Removes all marked ULNs, CINs, and PINs from the current collection.
Duplicate	Allows the user to make copies of all marked ULNs, CINs, and PINs in the current collection.
Renumber	Allows the user to rename all marked ULNs, CINs, and PINs in the current collection.
ULN Details	Allows the user to make range updates to requirement and routing data for all marked ULNs in the collection.
PIN Details	Allows the user to make range updates to requirement and routing data for all marked PINs in the collection.
CIN Details	Allows the user to make range updates to requirement and routing data for all marked CINs in the collection.
Split Shipments	Allows the user to split marked ULNs in the collection.
Unsplit Shipments	Allows the user to unsplit marked ULNs in the collection.
Reports	Allows the user to generate Reports on marked ULNs, CINs, and PINs in the collection.
Copy To Target	Allows the user to copy marked ULNs, CINs, and PINs to another PID.

5.3.12.5.1 Copy to Target

The Copy to Target capability may be slightly different in the way duplicate records are handled. The following expands on this capability.

This capability provides the user the capability to copy marked records to a target OPLAN. If a target OPLAN has not already been chosen (Choosing a new target OPLAN can be accomplished from the Editor window), the user will be prompted to choose one before this window is displayed. The major issue with respect to this function is the disposition of duplicate records. There is one button group in the middle of the window which controls this disposition. Duplicate Records are defined as the ULNs, CINs, or PINs whose REQIDs already exist in the target OPLAN. The choices are:

Renumber Only Duplicates	This option will copy all marked REQIDs not already found in the target OPLAN. It will then allow the user to renumber the REQIDs already found in the target OPLAN as they are being copied.
Renumber All REQIDs	This option will renumber all marked REQIDs as they are being copied to the target OPLAN.

Discard Duplicates	This option will copy all marked REQIDs not already found in the target OPLAN. It will not attempt to copy REQIDs already found in the target OPLAN.

5.3.13 Force Module Editing

From the RDA Editor screen, click on FM Edits or from the Edits pull down menu, select FM (Force Module) Edits. See Figure B-60, FM (Force Module) Edits. Note that the Select Function does not have to be performed. This will bring up the FM Edits menu. The user then selects one of the 13 stated operations available by clicking on the specific button. Currently, all operations are performed on one FM at a time (single selection of a FM), except for reports.

Edit Force Module (FM) provides the capability of doing the following:

- Create a FM.
- Add requirements to an existing FM, remove requirements from a FM, and replace the contents of an existing FM.
- Update a force module's title and/or description.
- Remove a FM from PID.
- Copy requirements within a FM. This capability keeps the requirements that were duplicated as well as the new requirements in the same FM.
- Copy force modules to target PID.
- Duplicate an existing FM, which creates a new FM with the same definition, title and description as an existing FM.
- Rename a FM.
- Renumber the requirements in a FM, the renumbered requirements remain in the FM.
- Mark all requirements in the current collection that are in a specified FM.
- FM report functionality. This functionality allows the user to produce reports showing both roll-up and detail information on force and non-unit requirements for all or part of the FMs in a PID. It also allows the user to produce a report showing all requirements in a selected PID by requirement number or type and all the FMs that contain those requirements.

The subsections discuss the actions resulting from the menu selections. However, since all selections require a FM to be selected, the first step discussed is how to select a FM.

5.3.13.1 Select FM

The purpose of this activity is to select an existing FM in the current Plan ID for further operations. The current Plan ID is the plan ID selected on the Requirements Development and Analysis screen. With the exception of the Reports selection, only one FM may be selected. When this screen appears, force modules for the current Plan ID are shown in the Available FMs list box, (see Figure B-61, Select FM). The force modules are listed by FMID in ascending order.

Actions Available. The following actions are available using this window:

Highlight FM (select FM) Capability	Use the mouse to select a FM. Note: Multiple FMIDs can be selected in the Selected list by holding the Shift key down and selected FMIDs in the Selected list with the mouse.
Search Capability	Enter FM Identifier and/or Title in the space provided at the bottom of the window. Wildcards may be used when specifying the search criteria. To specify wildcards, use % to match zero or more characters and _ to match a single character. After entering search criteria, press the Search push button.

Push Buttons:

Search	Searches for force modules that satisfy the search criteria specified in the ID and Title entry fields and displays the search results in the Available FMs list box. If no search criteria was entered and the search button was pressed, then force modules from the current PID are displayed in the list box.
OK	Makes the FM selection. The FM in the list box that is highlighted is selected as the FM on which to operate. The user is sent to the next operation. If no entries appear in the Available FMs list and OK button is pressed, then an alert message will appear indicating search criteria must be entered to retrieve FM(s) or press cancel to dismiss window.
Cancel	Closes the Select FM screen and returns user to previous window without FM Selection.

The following are a substitute for mouse activity in the list box:

First	Moves the highlight (and changes the force modules in the list if necessary) to the first record.

Last	Moves the highlight (and changes the force modules in the list if necessary) to the last record.
Next	Moves the highlight (and changes the force modules in the list if necessary) down one record.
Prev	Moves the highlight (and changes the force modules in the list if necessary) up one record.

5.3.13.2 Add to FM

The purpose of this selection is to add requirements to a FM (see Figure B-62, Add to FM). This function is invoked by pressing the Add to FM button on the FM Edits screen. The source of the requirements to add can be the collection, marked requirements in the collection, the requirements in another FM, or a typed in requirement ID. If requirements are added successfully to the FM, then an announcement dialog box will appear containing a message stating the number of requirements added to the FM. If an error occurs when trying to add requirements to a FM, then an alert dialog box containing an error message will appear.

Actions Available. The following actions are available in supporting this activity:

FM selection	When the Add to FM button is pressed, the Select FM screen appears to select the desired FM. The Select FM functionality is described in the Select FM section of this manual. If the user does not select a FM, then the user is returned to the FM Edits screen. If the user selects a FM, then the selected FM is the FM to add requirements to and the Add To FM screen appears.

Push Buttons:

Collection	Adds ULNs, CINs, and/or PINs from the collection to the selected FM. The user chooses the types of requirements in the collection to add to the FM by checking one or more of the check buttons in the Requirements check buttons group. When the Add to FM screen appears, all of the requirement types are checked.
Marked	Adds marked requirements in the collection to the selected FM.
Force Module	When this button is pressed, the Select FM screen appears so that the user can select the FM to use as the source of the requirements. The Select FM functionality is described in the Select FM subsection. If a FM is selected, then the requirements in the source FM is added to the target FM.
Type In ReqID	When this button is pressed, the Type In ReqID screen appears, which allows the user to type in a requirement to add to the selected FM. If the user types in a valid

requirement ID, that is, exists in the plan, then it is added to the FM. The Type In ReqID screen functionality is described in the Type In ReqID subsection.

Close — Closes the Add To FM screen and returns user to FM Edits screen.

5.3.13.3 Remove From FM

The purpose of this capability is to remove requirements from a FM. This function is invoked by pressing the Remove from FM button on the FM Edits screen. The source of the requirements to remove can be the collection, marked requirements in the collection, the requirements in another FM, or a typed in Requirement ID. Before any remove operation is performed, an answer dialog box will appear prompting the user to confirm remove operation. Only if the user presses OK in the answer dialog box will the remove operation occur. If requirements are removed successfully from the FM, then an announcement dialog box will appear containing a message stating the number of requirements removed from the FM for all operations, except Remove All Reqs operation. If an error occurs when trying to remove requirements from a FM, then an alert dialog box containing an error message will appear.

Actions Available. The following actions are available to support this activity:

FM selection — When the Remove from FM button is pressed, the Select FM screen appears in order to select a FM to remove requirements from. The Select FM functionality is described in the Select FM subsection. If the user does not select a FM, then the user is returned to the FM Edits screen. If the user selects a FM, then the selected FM is the FM to remove requirements from and the Remove from FM screen appears.

Push Buttons:

Collection — Removes ULNs, CINs, and/or PINs from the collection that are in a selected FM from the FM. The user chooses the types of requirements in the collection to remove from the FM by checking one or more of the check buttons in the Requirement check buttons group. When the Remove From FM screen appears, all of the requirement types are checked.

Marked — Removes marked requirements (in the collection) that are in the FM from the selected FM.

Force Module — When this button is pressed, the Select FM screen appears so that the user can select the FM to use as the source of the requirements to be removed. The Select FM functionality is described in the Select FM subsection. If a FM is selected, then the requirements in the source FM that are in the target FM (the FM that requirements are being removed from), are removed from the target FM.

Type In ReqID — When this button is pressed, the Type In ReqID screen appears, which allows the user to type in a requirement to remove from the selected FM. If the user types in a

Requirement ID that exists in the FM, then it is removed from the FM. The Type In ReqID screen functionality is described in the Type In ReqID subsection.

Remove all Reqs	Removes all requirements from a FM.
Close	Closes the Remove From screen and returns user to FM Edits screen.

5.3.13.4 Replace FM Contents

The purpose of this activity is to replace the contents of a FM. This function is invoked by pressing the Replace FM Contents button on the FM Edits screen. The source of the requirements with which to replace the contents of a FM can be the collection, marked requirements in the collection, or the requirements in another FM. Before any replace operation is performed, an answer dialog box will appear prompting the user to confirm replace operation. Only if the user presses OK in the answer dialog box will the replace operation occur. If the contents of a FM is replaced successfully, then an announcement dialog box will appear containing a message stating the number of requirements the FM was replaced with. If an error occurs when trying to replace the contents of a FM, then an alert dialog box containing an error message will appear.

Actions Available. The following actions are available under this activity:

FM selection	When the Replace FM Contents button is pressed, the Select FM screen appears in order to select the FM whose contents are to be replaced. The Select FM functionality is described in the Select FM subsection. If a FM is not selected, then the user is returned to the FM Edits screen. If the user selects a FM, then the selected FM is the FM whose contents is to be replaced and the Replace FM Contents screen appears.

Push Buttons:

Collection	Replaces the contents of the FM with ULNs, CINs, and/or PINs from the collection. The user chooses the types of requirements in the collection to replace the contents of the selected FM with by checking one or more of the check buttons in the Requirement check buttons group. When the Replace FM Contents screen appears, all of the requirement types are checked.
Marked	Replaces the contents of the FM with marked requirements in the collection.
Force Module	When this button is pressed, the Select FM screen appears so that the user can select the FM to use as the source of the requirements. The Select FM functionality is described in the Select FM subsection. If a FM is selected, then the contents of the target FM (the FM whose contents are to be replaced) is replaced with the requirements in the source FM.
Close	Closes the Replace FM Contents screen and returns user to FM Edits screen.

5.3.13.5 Type In ReqID

The purpose of this activity is to type in a Requirement ID, which will be added to a FM or removed from a FM. This function is invoked by pressing the Type In ReqID button on the Add to FM screen or the Remove From FM screen.

Actions Available. The following actions support this activity:

Requirement type selection	The user selects the type of requirement that will be entered into or has been entered already in the ReqID entry field. The user presses on the appropriate type of requirement radio button.
Entering of Requirement ID	The user enters the Requirement ID in the Requirement ID entry field.

Push Buttons:

OK	If the Type In ReqID screen appears after the Type In ReqID button is pressed for an add operation, a check is made to see if a requirement of the type and ID specified exists in the current PID. If not, an alert message containing a message that the requirement does not exist in the plan will appear and no add or remove operation will occur. If the requirement exists in the plan, then a check is made to see if the requirement already exists in the FM. If it does, then an announcement dialog box will appear containing a message that requirement already exists in the FM. If the requirement does not already exist in the FM, then it will be added. If the Type In ReqID screen appears as a result of a remove operation, then the user is prompted to remove the specified requirement from the FM. If the OK button of the dialog box is pressed, then a check is made to see that the requirement exists in the FM. If it exists, then it is removed from the FM. If the requirement does not exist in the FM, then an alert message appears with a message stating that the requirement does not exist in the FM. If the OK button is pressed and no Requirement ID is entered, then an alert dialog box will appear, notifying the user to enter a requirement ID or press Cancel to dismiss dialog box. After the OK button is pressed and all messages acknowledged, that is OK button on dialog box is pressed, the user is sent back to the FM Edits screen.
Cancel	Closes the Type In ReqID screen and returns user to FM Edits screen without any add or remove operation being performed.

5.3.13.6 Create New FM

The purpose of this activity is to create a new FM in the current PID. This function is invoked by pressing the Create New FM button on the FM Edits screen (see Figure B-63, Create New FM).

Actions Available. The following actions are available to support this activity:

Entry of FMID	The user must enter a valid FMID in the FMID entry field. A valid FMID is three alpha-numeric characters and the first character cannot be 'I' or 'O' and the FMID does not already exist in the PID.
Entry of title	When the Create FM screen appears, the Title entry field contains a default title. The user can change the title in the entry field.
Entry of description	The user can enter a description for the FM in the Description entry field

Push Buttons. The push buttons shown in Figure B-63, Create New FM, provide the following capabilities:

Add to FM	When this button is pressed, the FMID is checked to see if it is valid. If a valid FMID was entered, then a check is made to see if the title is empty. If the title is empty, then an answer dialog box appears notifying the user there is no title. The user may respond as desired. If the user presses the Yes button, then the FM with the entered FMID, title, and description is created. If the user presses the No button, then the dialog box is closed and an announcement dialog box appears with a message to enter a title or press Cancel to dismiss the window. If the creation is successful, then the Add To FM screen appears to allow the user to add requirements to the new FM. For description of the Add To FM functionality see the Add To FM subsection. If any error occurs after the Add To FM button is pressed, then the user will continue viewing the Create FM screen until the user presses the Cancel button or a FM is created successfully.
OK	When this button is pressed, the FMID is checked to see if it is valid. If a valid FMID was entered, then a check is made to see if the title is empty. If the title is empty, then an answer dialog box appears notifying the user there is no title. If the user presses the Yes button, then the FM with the entered FMID, (no) title, and description is created. If the user presses the No button, then the dialog box is closed and an announcement dialog box appears with a message to enter a title or press Cancel to dismiss window. If the creation is successful, then the user returns to the FM Edits screen. If any error occurs after the OK button is pressed, then the user will continue viewing the Create FM screen until the user presses the Cancel button or a FM is created successfully.

Cancel	Aborts creation operation, closes Create New FM, and returns user to FM Edits screen and no FM is created.

5.3.13.7 Edit FM Title & Description

The purpose of this activity is to edit a force module's title and description. This function is invoked by pressing the Edit FM Title & Desc button on the FM Edits screen.

Actions Available. The following actions support this activity:

FM selection	When the Edit FM Title & Desc button is pressed, the Select FM screen appears in order to select a FM in the current PID whose title and/or description is to be updated. The Select FM functionality is described in the Select FM subsection. If the user does not select a FM, then the user is returned to the FM Edits screen. If the user selects a FM, then the selected FM is the FM, whose title and description can be edited and the Edit Title and Description screen appears.
Edit of title	When the Edit Title and Description screen appears, the Title entry field contains the force module's current title. The user can edit the title in the title entry field.
Edit of description	When the Edit Title and Description screen appears screen appears, the Description entry field contains the force module's current title. The user can edit the description for the FM in the Description entry field

Push Buttons:

OK	When this button is pressed a check is made to see if the title is empty. If the title is empty, then an answer dialog box appears prompting the user to determine if no title is desired. If the user presses the Yes button, then the force module's title is updated if it has changed and its description is also updated if it has changed. If the user presses the No button, then the dialog box is closed and an announcement dialog box appears with a message to enter a title or press Cancel to dismiss the window. If the update is successful, then the user returns to the FM Edits screen. If any error occurs after the OK button is pressed, then the user will continue viewing the Edit FM Title and Description screen until the user presses the Cancel button or a FM is created successfully.
Cancel	Returns user to FM Edits screen and FM is not updated.

5.3.13.8 Remove FM from PID

The purpose of this activity is to remove a FM in the current PID from the database. This function is invoked by pressing the Remove FM from PID button on the FM Edits screen.

Actions Available. The following actions are available to carry out this activity:

FM selection	When the Remove FM from PID button is pressed, the Select FM screen appears in order to select a FM to remove from current PID. The Select FM functionality is described in the Select FM section of this manual. If the user does not select a FM, then the user is returned to the FM Edits screen. If the user selects a FM (pressed OK), then the window is closed and an answer dialog appears prompting the user whether to remove FM from the current PID. If the user presses the OK button, then the FM is removed from the PID. If the user presses the Cancel button, then the force module is not removed from the current PID. In either case, the user returns to the FM Edits screen.

5.3.13.9 Copy ReqIDs in FM

The purpose of this activity is to duplicate requirements in a FM which currently keeps the requirements that were duplicated as well as the new requirements (duplicated requirements) in the same FM. This function is invoked by pressing the Copy ReqIDs in FM button on the FM Edits screen. For information on Duplicate FM functionality, see the Duplicate section of this manual.

Actions Available. The following actions are available to support the activity:

FM selection	When the Copy ReqIDs in FM button is pressed, the Select FM screen appears in order to select a FM, whose requirements are to be copied. The Select FM functionality is described in the Select FM subsection. If the user does not select a FM, then the user is returned to the FM Edits screen. If the user selects a FM, then the selected FM is the FM, whose reqids the user wants to copy and the Copy ReqIDs in FM screen appears.

Push Buttons:

ULNs	Allows the user to duplicate ULNs in the FM. If there are no ULNs in the FM, then an alert dialog box will appear containing a message that no records exist. If there are ULNs in the FM, then the Duplicate screen appears allowing the user to duplicate all or some of the ULNs.
CINs	Allows the user to duplicate CINs in the FM. If there are no CINs in the FM, then an alert dialog box will appear containing a message that no records exist. If there are CINs in the FM, then the Duplicate screen appears allowing the user to duplicate all or some of the CINs.
PINs	Allows the user to duplicate PINs in the FM. If there are no PINs in the FM, then an alert dialog box will appear containing a message that no

	records exist. If there are PINs in the FM, then the Duplicate screen appears allowing the user to duplicate all or some of the PINs.
Close	Closes the Copy Req IDs in FM screen and returns user to FM Edits screen.

5.3.13.10 Copy FM to Target (not implemented currently)

The purpose of this activity is to copy force modules in one PID to another PID (target PID). This function is invoked by pressing the Copy FM to Target button on the FM Edits screen. If a FM already exists in the target PID, the Optional FM Operations screen will appear. For description of Optional FM Operations, see Optional FM Operations subsection. If FM does not already exist in the target PID, then it will be created in the target PID and requirements are added to it.

5.3.13.11 Duplicate Selected FM

The purpose of this activity is to create a new FM with the same title and description as an existing FM. This function is invoked by pressing the Duplicate Selected FM button on the FM Edits screen.

Actions Available. The following actions support this activity:

FM selection	When the Edit FM Title & Desc button is pressed, the Select FM screen appears in order to select a FM in the current PID to duplicate. The Select FM functionality is described in the Select FM section of this manual. If the user does not select a FM, then the user is returned to the FM Edits screen. If the user selects a FM, then the selected FM is the FM to duplicate and the Duplicate FM screen appears.
Entry of new FMID	The user must enter a valid FMID in the New FMID entry field. A valid FMID is three alpha-numeric characters and the first character cannot be 'I' or 'O' and the FMID does not already exist in the PID.
Edit of title	When the Duplicate FM screen appears, the Title entry field contains the title of the FM being duplicated. The user can edit the title in the Title entry field.
Edit of description	When the Edit Title and Description screen appears screen appears, the Description entry field contains the current title of the FM being duplicated. The user can edit the description for the FM in the Description entry field.

Push Buttons:

OK	When this button is pressed, the New FMID is checked to see if it is valid. If a valid FMID was entered, then a check is made to see if the title is empty. If the title is empty, then an answer dialog box appears prompting the user to see if no title is desired. If the user presses the Yes button, then the FM with the New FMID, title, and description is created. If the user presses the No button, then the dialog box is closed and an announcement dialog box appears with a message to enter a title or press Cancel to dismiss window. If the duplication is successful, then the user returns to the FM Edits screen. If any error occurs after the OK button is pressed, then the user will continue viewing the Create FM screen until the user presses the Cancel button or the FM is duplicated successfully.
Cancel	The FM is not duplicated. Closes Duplicate Selected FM Screen and returns user to FM Edits screen.

5.3.13.12 Rename FM

The purpose of this activity is to rename a FM. This function is invoked by pressing the Rename FM button on the FM Edits screen.

Actions Available. The following actions are available to support this activity:

FM selection	When the Edit FM Title & Desc button is pressed, the Select FM screen appears in order to select a FM in the current PID to rename. The Select FM functionality is described in the Select FM section of this manual. If the user does not select a FM, then the user is returned to the FM Edits screen. If the user selects a FM, then the selected FM is the FM to rename and the Rename FM screen appears.
Entry of new FMID	The user must enter a valid FMID in the New FMID entry field. A valid FMID is three alpha-numeric characters and the first character cannot be 'I' or 'O' and the FMID does not already exist in the PID. This is the only entry field that can be edited, that is, the Title and Description fields are not editable.

Push Buttons

OK	When this button is pressed, the New FMID is checked to see if it is valid. If a valid FMID was entered, then the FM is renamed. If the FM is renamed successfully, then the user returns to the FM Edits screen. If any error occurs after the OK button is pressed, then the user will continue viewing the Create FM screen until the

	user presses the Cancel button or the FM is duplicated successfully.
Cancel	The FM is not renamed. Closes Rename FM Screen and returns user to FM Edits screen.

5.3.13.13 Renumber FM Reqs

The purpose of this activity is to renumber requirements within a FM. This function is invoked by pressing the Renumber FM Reqs button on the FM Edits screen. For detailed information on Renumber functionality, see the Renumber subsection (see Figure B-64, Renumber FM Requirements).

Actions Available. The following actions support this activity:

FM selection	When the Renumber FM Reqs button is pressed, the Select FM screen appears in order to select a FM, whose requirements are to be renumbered. The Select FM functionality is described in the Select FM subsection. If the user does not select a FM, then the user is returned to the FM Edits screen. If the user selects a FM, then the selected FM is the FM, whose requirements the user wants to renumber and the Renumber FM Requirements screen appears.

Push Buttons:

ULNs	Allows the user to renumber ULNs in the FM. If there are no ULNs in the FM, then an alert dialog box will appear containing a message that no records exist. If there are ULNs in the FM, then the Renumber screen appears allowing the user to renumber all or some of the ULNs. When the Renumber screen is closed, the renumbered ULNs are in the FM.
CINs	Allows the user to renumber CINs in the FM. If there are no CINs in the FM, then an alert dialog box will appear containing a message that no records exist. If there are CINs in the FM, then the Renumber screen appears allowing the user to renumber all or some of the CINs. When the Renumber screen is closed, the renumbered CINs are in the FM.
PINs	Allows the user to renumber PINs in the FM. If there are no PINs in the FM, then an alert dialog box will appear containing a message that no records exist. If there are PINs in the FM, then the Renumber screen appears allowing the user to renumber all or some of the PINs. When the Renumber screen is closed, the renumbered PINs are in the FM.
Close	Closes the Renumber FM Requirements screen and returns user to FM Edits screen.

5.3.13.14 Mark Requirements in FM

The purpose of this activity is to mark all requirements in the current collection that are in specified module. This function is invoked by pressing the Mark Requirements in FM button on the FM Edits screen.

Actions Available. The following actions are available to support this activity:

FM selection — When the Mark Reqs in FM button is pressed, the Select FM screen appears in order to select a FM to use in marking requirements in collection. The Select FM functionality is described in the Select FM section of this manual. If the user does not select a FM, then the user is returned to the FM Edits screen. If the user selects a FM (pressed OK), then an announcement dialog box will appear containing a message stating the number of requirements marked in the collection. If an error occurs when marking requirements in the current selection that are in the selected FM, then an alert dialog box containing an error message will appear.

5.3.13.15 Optional Force Module Operations

The purpose of this activity is to provide Optional FM Operations whenever new requirements are made or when copying requirements to a target PID. Operations provided are the following: creation of a new FM containing the requirements, addition of the requirements to an existing FM, or replacement of the contents of an existing FM with the requirements. Optional FM Operations are provided by displaying the Optional FM Operations screen after a successful completion of the following operations: creation of requirements, renumbering of requirements, copy of requirements, or copy marked requirements to target.

Actions Available. The following actions support the above activity.

Push Buttons:

Create New FM — When this button is pressed, the Create FM screen appears without the Add To FM push button. The Create FM functionality is described in the Create New FM subsection. If a new FM is created successfully, then the requirements (successfully renumbered, copied, or created requirements) are added to the FM. If requirements are added successfully to the FM, then an announcement dialog box will appear containing a message stating the number of requirements added to the FM. If an error occurs when trying to add requirements to the FM, then an alert dialog box containing an error message will appear.

Add to FM — When this button is pressed, the Select FM screen appears in order to select a FM to which to add the requirements. The Select FM functionality is described in the Select FM subsection. If the user does not select a FM, then no add operation is performed. If the user selects a FM, then the requirements (successfully renumbered, copied, or created requirements) are added to the selected FM. If requirements are added successfully to the FM, then an announcement dialog box will appear containing a message

	stating the number of requirements added to the FM. If an error occurs when trying to add requirements to a FM, then an alert dialog box containing an error message will appear.
Replace FM Contents	When this button is pressed, the Select FM screen appears in order to select a FM, whose contents you want to replace. The Select FM functionality is described in the Select FM section of this manual. If the user does not select a FM, then no replace operation is performed. If the user selects a FM, then the contents of the selected FM is replaced with the requirements (successfully renumbered, copied, or created requirements. If the contents of the FM is replaced successfully, then an announcement dialog box will appear containing a message stating the number of requirements the FM was replaced with. If an error occurs when replacing the force module's contents, then an alert dialog box containing an error message will appear.
Close	Closes the Optional FM Operations screen.

5.3.13.16 Reports

The purpose of this activity is to produce FM reports. This function is invoked by pressing the Reports button on the FM Edits screen.

Actions Available. The following actions support this activity:

Selection of Report	Report selection is covered in the push button paragraph.
Selection of Multiple FMs for Report	When one of the report button are pressed on the FM Reports screen, the Select FMs screen appears in order to select Force Modules for the report to be generated. The Select FM functionality is described in the Selection of Multiple FMs section of this manual. If the user does not select any force modules, then the user is returned to the FM Edits screen. If the user selects force modules, then the selected force modules that contain requirements are used when generating the report.

Push Buttons. When the Reports button is pressed on the FM Edits screen, the FM Reports screen appears and it contains the following push buttons:

FM Rollup	When this button is pressed it brings up the Select FMs screen. If the user selects force modules, then the Pre-Defined Reports Selection screen appears. If the user presses the Apply button, then the FM Rollup report is created for the force modules that were selected.

Plan Rqmts FM	When this button is pressed it brings up the Select FMs screen. If the user selects force modules, then the Pre-Defined Reports Selection screen appears. If the user presses the Apply button, then the Plan Rqmts FM report is created for the force modules that were selected.
FM Report	When this button is pressed it brings up the Select FMs screen. If the user selects force modules, then the Pre-Defined Reports Selection screen appears. If the user presses the Apply button, then the FM Report is created for the force modules that were selected.
Close	Closes the FM Reports screen and returns user to FM Edits screen.

5.3.14 Requirement Renumbering

This capability permits the user to renumber records after creating them, after copying records, and after copying records to a target PID. There are several steps to follow to accomplish this activity. See Figure B-64, Renumber. These are:

a. Select Numbering Style. This subsection discusses the center of Figure B-64, Renumber. All options for ULNs allow the user to click on the "Preserve C/P/E" checkbox which will always leave the fifth position as C, P, or E, if the source requirement has one of these characters:

- By Basic FRN (ULNs only): Requirements will be generated by numbering on the first three values of the seed ULN. Force structure is maintained and all remaining characters (positions 4-7) in the source list are maintained in the generated requirements lists.

- Compress Subordinates (ULNs only): Requirements will be generated by numbering on the first 4 values of the seed ULN. If user entered less than 4 characters for the seed value, the fourth character of the seed value will be forced to "A". Force structure is maintained and all remaining characters (positions 5-7) in the source list are maintained in the generated requirements lists.

- Sequential ULNs. (ULNs only): Requirements will be generated by numbering in sequence. Force structure is not maintained with the source list. Up to four characters may be entered.

- CINs/PINs. (CINs and PINs only): Requirements will be generated by numbering on the last five characters of the requirement.

- User Input: Allows user to click on source list requirement, and enter a new value in the entry on the bottom middle of the window.

- Custom: Configure the numbering style used for each position of the requirement. Options include 1) forcing a entered value remain constant throughout the numbering process, 2) designate certain positions to be used for automated numbering, and forcing the original value to remain. May be used to renumber all positions of CINs/PINs.

  The display area located under the radio box area produces a display labeled Character Position and Position Value. See Figure B-34. Initial values must be entered next to Position. The user must not have a blank in the first two characters, a "C," "P," or "E" in the fifth position, and both or none of the sixth and seventh positions can be filled in. Valid characters in all positions are: "A-Z," "a-z." and "0-9," with the exception of I, and O.

b. Enter Seed Value: Enter seed value.

c. Generate Proposed Requirements Lists. Next click on the "Check for Conflicts" button.

d. Change Valid or Conflicting Proposed Requirements. Click on entry in the Valid IDs or Conflicting IDs and type in new value below. Click on Rename.

e. Accept Valid Proposed Requirements. If Valid requirements exists, click on "OK" to accept new requirements.

The Optional FM Ops window will pop-up, allowing FM operations on the new requirements for all alternatives.

5.3.14.1 Operation

One important aspect of this operation requires a periodic test for conflicting ReqIDs being created with existing data, by clicking on the button Check for Conflicts. ReqIDs already in the database will be listed in the Conflicting IDs sector located in the lower right corner of the pop-up window. The number of conflicts will be displayed above this list (see Figure B-66, Renumber Conflicts).

New non-conflicting ReqIDs not in the database will be displayed in the area, Valid IDs, located in the upper right corner of the pop-up window. By using the radio button, User Input, the values are input one by one into the list. Clicking on the Check for Conflicts will ensure the values are checked against the database.

To create parent ULNs:

Action Step	Results
1. Click on the RDA: Convert to Parent buttons.	The pop-up window RDA: Convert to Parent should now be displayed.

2. Choose parent type or change parent type of previous settings, and click on OK.	The list should now change to indicate parent code.

5.3.14.2 Window Interaction

The following user entries are available.

User Interaction:

Position Value	User enter values. Positions available depends on above selections.
Rename To	User may rename ULN highlighted in the list box above. The Rename button executes the renaming action.
Goto	User may enter record number to be shown at the top of the list box on the left.

Push Buttons:

Check for Conflicts	Checks the suggested renumbering for conflicts within the PID. List boxes on right show results.
OK	Executes the renumbering operation for the Valid IDs and sends the user to the Optional FM Options. Requirements in the Valid IDs list will be entered into the database.
Cancel	Cancels the operation and returns the user to the previous window.
Reset	Clears the right two list boxes and resets default settings for the numbering style option.

The following are a substitute for mouse activity in the three list boxes:

- Prev: Moves the highlight up one record.
- Next: Moves the highlight down one record.
- First: Moves the highlight (and changes the list if necessary) to the first record.
- Last: Moves the highlight (and changes the list if necessary) to the last record.

5.3.15 Flow Analysis

The purpose of Flow Analysis is to provide a capability to view Cargo/PAX loadings on a timeline for either one or multiple FMs. Typically this capability is used to do a rough sanity check on loadings by taking each

Service's transportation requirements and comparing these to the available capabilities assigned. The capability limits exist as separate data and can be reused and shared.

5.3.15.1 Terminology

Because this capability is derived from DART, but beyond the other legacy systems, this subsection of terminology is included.

Absolute	A display mode for the loadings. Absolute is an alternative to Cumulative. Absolute mode shows just the amount of loadings for that C-Day for each C-Day where the FM has a loading.
Amount Type	Another way of saying Cargo/PAX.
C-Day Cell	One day's loadings requirements for one FM for one Date Type. Shows whichever three Cargo/PAX types are selected for displayed as height proportional graphics. Scaling depends upon how the amount value for each Cargo/PAX type compares to the largest value for that Cargo/PAX type for any C-Day Cell. A C-Day Cell is one box with something in it on the timeline part of the display. See C-Day Cell under Screen Layout for more information on C-Day Cell menu items. Graphics are color coded with Yellow for Total, Blue for Air transport, and Green for Sea transport.
Capability Limit	Also known as Capability Line. An amount of loadings which nominally represents the most loadings allowed on that C-Day for that FM. Displays as a red line on the screen.
Cargo/PAX	There are eleven loading amount types of displayable: Air STONs, Air PAX, Sea MTONs, Sea MTONs, STONs (implies Total STONs), PAX (implies Total PAX), MTONs (implies Total MTONs), Sea SQFT, Sea PAX, MBBLS - Total, and MBBLS - without water.
Cumulative	A display mode for the loadings. Cumulative mode shows the loadings amounts accumulated over all days to date. That is, the value is a running summation of the amount to date.
Date Type	There are six date types: RLD, ALD, EAD, AVG, LAD, and RDD. AVG has a current software limit in that the loadings are not evenly spread across the days from EAD to LAD.
Force Module	Collection of requirements as defined in the PID. Often kept by Service/component.
Loadings	Requirements to load/unload Cargo or PAX.

Row	One row in the Flow Analysis display shows data for one FM, one Date Type and up to three Amount Types.

5.3.15.2 Actions Available

The following activities are available to support Flow Analysis. The Timeline window functions generally are the same as elsewhere. One can scroll left and right to look at different C-Days, zoom, and scroll up and down (see Figure B-67, Editor with Flow Analysis).

The first two menu buttons specifically for Flow Analysis are on the left side of the screen.

- Pick Force Module (Pick FM) (see Figure B-68, Select FM). Select one or more Force Modules for display. Only one when be selected when the display mode is set to "One FM Analysis." One to five FM"s may be selected when the display mode is set to "Compare FM"s" mode. See below for a discussion of these two options.

- Force Module Options (FM Opt) detailed options (see Figure B-69, FM Opt Menu).

  - General Information. Lists information about the current display modes and parameters set.

  - Absolute Amounts Shown: Toggle? or Cumulative Amounts Shown: Toggle? See Figure B-70, Discrete Display; and Figure B-71, Cumulative Display. Tells whether Absolute Cargo/PAX loadings are being displayed or Accumulated Cargo/PAX amounts are being shown. Selecting the menu item toggles/switches the displayed mode to its opposite - Absolute goes to Cumulative and Cumulative goes to Absolute. Menu item changes to reflect current mode.

  - Cargo/PAX Types to Show (see Figure B-72, Cargo/PAX Type to Show). Puts up a selection dialog to pick which three Cargo/PAX types to show on the display. A current software limitation requires three (3) types to be selected, rather than allowing just one or two to be selected.

  - Capability Limit Options. Has two sub-options available: Option 1) Cap Limits Shown: Toggle? or Cap Limits Hidden: Toggle? Changes the display mode between displaying and not displaying the currently set capability limits. When not displaying the currently set capability limits, the capability data is still there, its just invisible. Option 2) Delete Capability Limit. Provides a menu of Capability Limits currently saved in the database. Any one may be selected and deleted from the database. Does NOT affect currently loaded capability limit data. Note: there is NO undo to recover a deleted Capability Limit.

  - One FM Analysis: Toggle? / Compare FM"s: Toggle? Changes between looking at one FM or looking at one to five FM"s at once.

When in the One FM Analysis mode, the display shows one FM for all six Date Types, and Pick FM will only let one FM be selected.

When in the Compare FM"s mode, the display shows from one to five FM"s. If there are two or more FM"s, then the total of their loadings is shown on the bottom row. Currently a software limit prevents showing the total of the capability limits of all FM"s on the bottom row when in Cumulative display mode. Pick FM allows a person to select up to five FM's for display. This toggle is typically set mostly in the Compare FM's display mode.

Note: Flipping between "One FM Analysis" and "Compare FM"s" display modes does NOT lose any of the retrieved FM data (e.g. one does NOT have to re-retrieve the FM loadings data again - retrieving is a slow process. When going from "Compare FM"s" to "One FM Analysis", the first FM in alphabetic order is used in the display. Currently there is no way to pick a different one of the FM"s from those already retrieved for detail analysis. When going from "One FM Analysis" to "Compare FM"s", if multiple FM"s had already been retrieved, they will be shown.

- Compare FMs Date. Provides a submenu where which of the six Date Types to show loadings for. By default the Date Type used when in "Compare FM"s" mode is LAD.

- Minor Options. Has two submenu items for infrequently used display modes settings.

  Amount Text Shown: Toggle? / Amt Text Hidden: Toggle? Changes between showing and not showing the loading amounts in each C-Day loadings cell. Puts in text numbers the three Cargo/PAX loadings amounts shown by the proportional graphics in the C-Day cells. This was provided as a alternative to the DART ability to provide loading amount data as the mouse was moved over a C-Day cell without clicking. People have suggested turning this on and printing the timeline as a way of providing a graphical / textural spreadsheet of loadings in a single printout. The numeric text does NOT show any numbers for the Capability Limits set in the C-Day cell, if any.

  On Call Amounts NOT used in scaling: Toggle? / On Call Amounts ARE used in scaling: Toggle? The proportional height graphics used in each C-Day cell with loadings are scaled to the largest value to be shown for the associated amount type (STONs, ...). The key word here is "largest value". Often the "largest value" is On Call Amounts (C-Day=999), and this value is not relevant to the FM Compare or Analysis. An option was added to allow using or not using the On Call amounts in the scaling calculations. Typical use does NOT use On Call Amounts NOT used in scaling.

- Refresh Display. Redraws the screen based upon current display mode settings and retrieved FM data. It should not be needed, but in case of a software bug or system

glitch can be used to redraw the display from scratch. Same effect can be achieved by selecting "Cargo/PAX Types to Show..." and clicking OK.

- About FM Graphics. Describes software current limitations and provides general information. Intent is to provide a place to put description of future enhancements as new releases are created.

- Click on a C-Day with loadings in the timeline. Get information on exact loadings amounts and capability limits for the C-Day. Can also set one or more C-Day"s capability limits, and clear any limits currently set for that FM.

- Click on row's FMID. Can load or save capability limits for that row.

5.3.15.3 Screen Layout

The following information discusses the screen layout for Flow Analysis.

Left most column titled "Max Amts" contains a key/legend for the three graphics used to display amount of loadings. The largest value is shown above the graphic legend. The Capability Limit line style and color associated with a limit set on the Cargo/PAX amount type is shown just above the largest value.

Second from left column titled "Date Types" contains either a Date Type if in "One FM Analysis" mode, or a Force Module ID if in "Compare FM"s" mode. The "..." implies a menu of Capability Limit operations will appear if selected.

5.3.15.4 Capability Limit Operations

Capability Limit operations pertain to a given row and are accessed by clicking on the "..." under the date type column. One may load and save Capability Limit values to/from the database. Also some general limit values and information is shown above the menu.

The specific actions are listed below:

To Load a Capability Limit:	Select Load Pick a Capability Limit
To Save a Capability Limit:	Select Save Select a Capability Limit from the menu or Cancel if one wishes to cancel or create a new Capability Limit. Select make a new Capability Limit or Cancel if one really wants to cancel the whole operation. Enter the new Capability Limit"s name Enter the new capability Limit"s description (no line feeds allowed) Pick the Cargo/PAX type to save data from

5.3.15.5 C-Day Cell

Each Timeline C-Day box with some graphics in it reflects loadings for that C-Day. Clicking on a C-Day Cell brings up a pop-up titled "RDA: One Cell Information" (see Figure B-73, One Cell Info). The pop-up has some general data about that cell and provides two operations:

- Capability Limit value setting. To set or change a Capability Limit value: Select the start and end C-Day for the limit. Using 999 for the end C-Day means the new limit will go on indefinitely. The earliest possible C-Day in a TPFDD is shown as -999. Using the same date for Start and End sets the limit just for that day.

  Enter New Limit value. For any of the three Cargo/PAX amount types entered a New Limit to be applied for the range of C-Day"s entered above. The existing limit is shown under Limit, and the loadings for the C-Day is shown under Reqmt (Requirement).

  Hit OK to carry out setting the New Limit. Note: There is NO undo.

  Hit Cancel to not make any change.

- Clearing all Capability Limit values loaded/set on the row. To Clear all Capability Limit values for this row:

  Select Other.

  Select Clear Capability Limit.

  Select Cargo/PAX amount type to clear Capability Limit values.

  Select OK - Clear, yes really remove ALL existing limits for this row and the selected Cargo/PAX amount type. Note, this does not affect any Capability Limit data saved to the database.

5.3.16 Map Display

An enhanced mapping capability will be accomplished after the RDA functionality is completed. The scheduling of this effort will coincide with the future development of the Common Operating Environment (COE).

5.3.17 Report Generation

RDA users have two sources for printed reports. The Pre-Defined Reports (PDR) system is available throughout JOPES. In addition, there are three locations from within RDA where reports may be executed.

These are:

- Editor Menu Bar (all records in the selected PID),
- Operations on Marked Records Menu,

- FM Edits, and
- Special/Application Dependent Locations.

The advantage of these various locations is that the record selection criteria is set. Not all reports are available at each location. For example, the FM edit location supports FM related reports. The special applications are the Compare and Update PID from TUCHA.

The following paragraphs are organized by the functional groupings and provide a brief description of JOPES reports available. Appendix C provides examples of report formats. For those familiar with reports available in the previous release of JOPES, the old report number is in parentheses after the report title as a reference:

Requirements Detail Group. The reports provided within each of the five functional areas are described below.

- **Force Requirements (F11W)**. Reports force cargo categories and cargo detail data for selected records in the OPLAN. All selected force records or groups of force records in the OPLAN file can be specified to be printed. The report shows the sequence number and ULN along with basic routing data for each qualifying force record. Cargo categories and details are listed with cargo quantity summary totals for each CCC and requirement number.
- **AMC (BG)**. Reports the AMC airlift requirements, and movement and routing data. Details include ULN/CIN/PIN, cargo description, number of pieces, cargo dimensions, weight, and totals. The user can print the data from all requirement records (ULNs, CINs, and PINs) in the OPLAN or specify selected groups of records to be printed.

- **MSC (BG)**. Reports the Military Sealift Command (MSC) sealift requirements, and movement and routing data. Details include ULN/CIN/PIN, cargo description, number of pieces, cargo dimensions, weight, and totals. The user can print the data from all requirement records (ULNs, CINs, and PINs) in the OPLAN or specify selected groups of records to be printed.

- **Airlift (BG)**. Reports all airlift requirements, and movement and routing data. Details include ULN/CIN/PIN, cargo description, number of pieces, cargo dimensions, weight, and totals. The user can print the data from all requirement records (ULNs, CINs, and PINs) in the OPLAN or specify selected groups of records to be printed.

- **Sealift (BG)**. Reports all sealift requirements, and movement and routing data. Details include ULN/CIN/PIN, cargo description, number of pieces, cargo dimensions, weight, and totals. The user can print the data from all requirement records (ULNs, CINs, and PINs) in the OPLAN or specify selected groups of records to be printed.

Movement Requirements Group. The reports provided within each of the three functional areas are described below.

- **Force List/Movement Requirements Working Paper (F11D)**. Extracts force list data from a OPLAN and prints a Force List/Movement Requirements working paper. All force

list records selected or groups of force list records in the OPLAN can be specified to be printed. The report shows the ULN/CIN/PIN, a description of the unit, and basic routing data for each qualifying force record.

- **Time-Phased Transportation Requirements List (Tonnage) (F11E)**. Reports movement requirements in terms of tonnage, for bulk, oversize, outsize, and nonair-transportable cargo. All force records or selected groups of force records in the OPLAN can be specified to be printed.

- **Time Phased Transportation Requirements List (Square Feet) (F11E)**. Reports movement requirements in terms of square feet, for vehicular, nonself-deployable aircraft and boats, and other cargo. All force records or selected groups of force records in the OPLAN can be specified to be printed.

Force Module Group. The reports provided within each of the three functional areas are described below.

- **Force Module Rollup (D3)**. Reports FM rollup summary data by requirement type. The cargo summary data are separated by bulk, outsize, oversize, and nonair transportable categories (in tons). The personnel summary data are presented in terms of passengers (PAX). The user can print the data from all requirement records (ULNs, CINs, and PINs) in the OPLAN or specify selected groups of records to be printed for a FM or a group of FMs.

- **Force Module Report (D3)**. Reports requirement records with their associated personnel, cargo manifest, and routing data for all or a group of FMs. The user can print the data from all requirement records (ULNs, CINs, and PINs) in the OPLAN or specify selected groups of records to be printed.

- **Plan Requirements Module Reference (D3)**. Reports each requirement type (ULNs, CINs, and PINs) with a list of their associated FMIDs. The user can print the data from all requirement records (ULNs, CINs, and PINs) in the OPLAN or specify selected groups of records to be printed.

OPLAN Analysis Group. The reports provided within each of the three functional areas are described below.

- **Logical Errors Report (BI/F50)**. Audits the OPLAN data and produces a report of the audit error results. The audit consists of format and content edits of individual data fields as well as consistency checks of interrelated data fields. The user can choose the level of editing to be performed. Reports can cover all requirement records (ULNs, CINs, and PINs) in the OPLAN or selected groups of records.

- **Transportation Pre-Edit Report (BJ)**. Reports the errors in OPLAN elements that may prevent transportation scheduling, focusing on key scheduling information. The user can choose the level of errors. Reports can cover all requirement records (ULNs, CINs, and PINs) in the OPLAN or selected groups of records.

- **OPLAN Comparison (F52)**. Loads the TPFDDs associated with two PIDs, compares them, and reports the fields that are different, along with the data. Lists and record counts are given of all records changed, added, and deleted in the new TPFDD in relation to the old TPFDD. The records are characterized by FRN or ULN/CIN/PIN. Both force and non-unit records can be compared in a single execution of this report. This report may be initiated from within the Compare functionality discussed earlier.

Reference File Paging Group. The reports provided within each of the two functional areas are described below.

- **GEO Paging Report**. Reports Geographical location data, which include the location data, country data, type of installation, and geographical coordinates. All geographical locations data or a selected group of geographical location data can be specified to be printed.

- **TUCHA Paging/Reports**. This option can generate a series of reports, which provide general Unit Type Characteristics, including high level PAX and cargo movement data, third level cargo movement detail, and fourth level cargo detail information. All UTCs or a selected group of UTCs can be specified to be printed.

5.3.18 Help

Help is available through the right hand button on the menu bars. For those windows not having a menu bar, use the F1 key. Presently Help is keyed at the window level. Capability exists to bring it to a cursor sensitive level. This capability will be exploited in future releases.

5.4 Related Processing

Network transaction processing is discussed in Section 3. Various edit and error checking routines may be performed in the background.

5.5 Data Backup

Data backup is a system administration function and will not be addressed here.

5.6 Recovery Procedures from Errors/Malfunctions/Emergencies

If there are problems with the terminal or if the computer fails, there are specific procedures to correct the situation. CONTACT YOUR FUNCTIONAL DATABASE MANAGER IMMEDIATELY.

If the system seems to hang, i.e., the clock stays on for an extended period, press the CTRL and "●". This action will interrupt the current script (program) and return the user to the point of activity prior to the script execution.

5.7 Messages

The list of all RDA error messages and their meaning is contained in the message data list below. The following list provides the error messages that are produced when an error check is performed. These messages are shown on the lists available under the Timeline display and the range changes performed under Marked Record operations. The first column is the level of the error. A Warning (W), for example, produces a yellow flag on the Timeline, while a Fatal (F) produces a red flag. After some of the messages is a alphanumeric value in parentheses. This value is the paragraph number or subsection of the JOPESREP (Section 2, reference h.) that relates. A numeric value indicates the source is Table I-28. Values beginning with a F, K, or T are based on Appendix B - Force Records, those beginning with a PI are based on Appendix A - Plan Information Records, those beginning with a N are based on Appendix C - Non-unit Requirement Records: while those beginning with FM are based on Appendix M - Force Module Records.

LEVEL	MESSAGE
W	CIN must be 7 characters
W	First position of CIN must contain a valid using organization code
W	Second position of CIN must contains a valid movement type code
W	Positions 3 - 7 of CIN must be numeric
W	PIN must be 7 characters
W	First position of PIN must contain a valid using organization code
W	Second position of PIN must contains a valid movement type code
W	Positions 3 - 7 of PIN must be numeric
W	ULN position 1 or 2 must not be blank
W	ULN must not contain an 'I' or 'O'
W	Invalid Fragmentation code value of 'I' or 'O'
W	ULN/Insert code must not equal 'I' or 'O'
W	Non-alphabetic or numeric ULN FRN
W	Non-alphabetic or numeric ULN fragmentation code value encountered
W	Non-alphabetic or numeric ULN INSERT
W	Invalid ULN
W	Frag/Insert codes must both be filled in or both be blank
W	UTC function category code must not contain an 'I' or 'O'
W	UTC not in TUCHA
W	UTC TUCHA record in canceled status
W	FIC must not be blank (10)
W	Invalid FIC/PIC relationship (10)
W	Invalid non-standard 99BB UTC/FIC relationship (23)
W	Invalid PIC encountered
W	Service must be Air Force for FRN specified (58)
W	ULN and PIC are incompatible
W	Invalid ULC value
W	ULC must not be blank
W	Days Delay must be entered (N049)
W	Level 4 MTONs must be greater than zero (T09)
W	Reason for intermediate stop must be entered (N043)
W	Service code must not be blank
W	Invalid ULN/PIC structure
W	Invalid UTC value of blanks

W	Level 4 STONs must be greater than zero (T08)
W	Force/TUCHA service mismatch (03)
F	Cargo and PAX quantities equal zero (04)
W	Destination record must not exist for Parent
W	Bulk STONs does not match TUCHA (60)
W	Bulk MTONs does not match TUCHA (60)
W	NAT STONs does not match TUCHA (60)
W	NAT MTONs does not match TUCHA (60)
W	Oversize STONs does not match TUCHA (60)
W	Oversize MTONs does not match TUCHA (60)
W	Outsize STONs does not match TUCHA (60)
W	Outsize MTONs does not match TUCHA (60)
W	Bulk MBBLS volume does not match TUCHA (60)
W	PAX does not match TUCHA (61)
W	Authorized personnel does not match TUCHA (54)
W	POD Projected days late must be blank for unit on call to POD (F055)
W	Number of pieces for item must be greater than zero (T07)
W	RLD must be between N040 and C997
W	LAD for personnel fillers is greater than C030 in AMC move (15)
W	Number of required cargo categories must equal the number of reported cargo categories
W	UIC/Unit Name must be blank for shortfall (67)
W	Level 3 NAT Cargo not = to Level 2 NAT Cargo (62)
W	Level 3 OUTSIZE Cargo not = to Level 2 OUTSIZE Cargo (62)
W	Level 3 OVERSIZE Cargo not = to Level 2 OVERSIZE Cargo (62)
W	Providing organization must be blank
F	UIC must not be blank
W	Authorized Personnel must be greater than 0
W	Heavy lift code must not be blank
W	PAX must be less than or equal to Authorized Personnel (40)
W	No associated personnel record for split shipment (41)
W	No associated cargo record for split shipment (42)
W	Level 3 BULK Cargo not = Level 2 Bulk Cargo (62)
W	No Level 3 cargo records for FIC of 2,8,9 (33)
W	No Level 4 cargo records for FIC of 2,8,9 (33)
W	Level 3 MBBLS not = to Level 2 MBBLS (62)
W	Level 3 SQFT not = to Level 2 SQFT (62)
W	EAD is less than RLD (30)
F	ALD is less than RLD (30)
F	LAD is less than RLD (30)
W	Level 3 MBBLS must be greater than zero (K05,N038)
W	Level 3 MBBLS must be zero for non-POL Cargo (K05)
W	Heavy lift code must be blank for Bulk Cargo (K06)
W	POE GEOLOC must not equal POD GEOLOC (20, N015, F050)
W	GEOLOC latitude and longitude equal zeros
W	RDD not the same for all Frag/Insert records (48)
W	Destination not the same for all Frag/Insert records (49)

W	DEST Load configuration/discharge constraint not equal "N" when POD equal DEST
W	Level 4 MTONs do not equal Level 3 MTONs (K03)
F	Invalid 1st position of Cargo Category Code
F	Invalid 2nd position of Cargo Category Code
F	Invalid 3rd position of Cargo Category Code
F	Parent Record must not have cargo (F018 - F025)
F	Parent Record must not have required cargo category codes (F027)
F	Parent Record must not have reported cargo category codes (F028)
W	Cargo category quantities must be greater than zero
W	Level 3 MTONs must be greater than zero (K04)
W	Supply class/subclass must not be blank
W	Level 3 MTONs must be zero for Bulk POL (K04)
W	Heavy lift code must be blank
W	Heavy lift code must be not be blank
W	Level 4 STONs do not equal Level 3 STONs (K03)
W	STONs must be 0 for Water/POL (14)
W	STONs must greater than 0
W	MTONs must be 0 for water/POL (14)
W	MTONs must be greater than 0
W	SQFT must be 0 for water/POL 14)
W	SQFT must be greater than 0
W	MBBLS must be greater than 0 for bulk POL
W	MBBLS must be greater than 0 for Water
W	Invalid POE mode for NAT cargo (07)
W	Invalid POD mode for NAT cargo (07)
W	Invalid DEST mode for NAT cargo (07)
W	Invalid ILOC mode for NAT cargo (07)
W	Invalid POE mode/source for Bulk POL (08)
W	Invalid POD mode/source for Bulk POL (08)
W	Invalid DEST mode/source for Bulk POL (08)
W	Invalid ILOC mode/source for Bulk POL (08)
F	Origin GEOLOC is blank
F	POE mode must not be blank
F	POE source must not be blank
F	Transportation mode/source to POE Invalid (34)
W	Level 3 STONs must be greater than zero (K03)
W	Level 3 STONs must be zero for Bulk POL (K03)
W	No mobilization lead time information available (PI009)
W	No reserved component mobilization date available (PI010)
W	No OPLAN classification available (PI016)
W	No PID name available (PI018)
W	Level 3 SQFT must be entered for vehicular CCC (K02)
W	No objective area available (PI014)
W	No concept of operations available (PI002)
W	No conditions for implementation available (PI003)
W	No critical resource information available (PI004)

W	No key factor assumptions available (PI006)
W	No major force identification available (PI007)
W	No mission statement available (PI008)
W	No objectives information available (PI011)
W	No non-unit resupply shortfall information available (PI012)
W	No non-unit personnel shortfall information available (PI013)
W	No operational constraint information available (PI015)
W	No supporting CINC identified (PI020)
F	Origin GEOLOC not found in database
W	Origin GEOLOC in cancel status
W	Origin GEONAME contains "UNK"
W	Origin GEOLOC latitude and longitude equal zeros
F	ILOC GEOLOC not a valid airbase
W	ILOC GEOLOC not found in database
W	ILOC GEOLOC in cancel status
W	ILOC GEONAME contains "UNK"
W	ILOC GEOLOC latitude and longitude equal zeros
F	POE GEOLOC not a valid airbase
F	POE GEOLOC not found in database
W	POE GEOLOC in cancel status
W	POE GEONAME contains "UNK"
W	POE GEOLOC latitude and longitude equal zeros
F	POE GEOLOC not a valid seaport
F	POD GEOLOC not a valid airbase
F	POD GEOLOC not found in database
W	POD GEOLOC in cancel status
W	POD GEONAME contains "UNK"
W	POD GEOLOC latitude and longitude equal zeros
F	POD GEOLOC not a valid seaport
F	ILOC GEOLOC not a valid seaport
F	Destination GEOLOC not a valid airbase
W	Destination GEOLOC not found in database
W	Destination GEOLOC in cancel status
W	Destination GEONAME contains "UNK"
W	Destination GEOLOC latitude and longitude equal zeros
F	Destination GEOLOC not a valid seaport
W	FMID must not contain I or O in first position (FM001)
F	Non-alphabetic or numeric FMID
W	Force Module must have a title (FM004)
W	Force Module must have a description (FM006)
W	Cargo Description must be entered (N051)
W	Personnel Description must be entered (N051)
F	PAX must be greater than 0 (17)
W	Level 3 SQFT must be entered for cargo longer than 35 feet (K02)
F	UIC not in SORTS (F013)
W	No Unit Name for UIC (F014)

W	No force requirement description available (F009)
W	PIF must be blank or allowed value (F095)
W	SSF must be blank or allowed value (F095)
F	No Origin record found
F	No POE record found
F	POE GEOLOC is blank
F	No POD record found
F	ILOC mode must not be blank
F	ILOC source must not be blank
F	Invalid ILOC mode/source combination (35)
W	ILOC GEOLOC is blank
F	POD mode must not be blank
F	POD source must not be blank
F	Invalid POD mode/source combination (36)
F	POD GEOLOC is blank
W	No Destination record found
W	Destination mode must not be blank
W	Destination source must not be blank
W	Invalid Destination mode/source combination (37)
W	Destination GEOLOC is blank
W	LAD must be blank for Parent (F053)
W	EAD must be blank for unit on call to POD (F052)
W	EAD must be blank for Parent (F052)
W	ILOC GEOLOC equals Origin, POE, POD or DEST GEOLOC (22)
W	Origin mode/source must be blank
W	POE GEOLOC must not be same as POD GEOLOC unless unit in place (20)
W	PAX only record must not have required cargo category codes (F027)
W	NON-CONUS Location for MTMC move to Destination (51)
W	NON-CONUS Location for MTMC move to POD (51)
W	NON-CONUS Location for MTMC move to POE (51)
W	NON-CONUS Location for MTMC move to ILOC (51)
W	Invalid EAD/LAD relationship for mode value of S
W	Illogical ILOC stop value
F	Invalid POE mode/source for CONUS POE = Origin
W	Invalid Destination mode/source for CONUS POD = DEST
W	RDD not equal LAD when POD equal Destination
W	LAD must be less than or equal to RDD (30, N018)
F	EAD must be less than or equal to LAD (30, N017)
F	ALD must be less than or equal to LAD (30, N018)
F	POE ALD must be between N040 and C997
W	Invalid Destination mode/source for non-CONUS POD = DEST
F	POD EAD must be between N040 and C997
F	POD LAD must be between N040 and C997, or = C999
W	Parent record must not have PAX (F017)
W	RDD must be between N040 and C997, or = C999
F	ALD must be entered (N009)

F	LAD must be entered
F	EAD must be entered (F052, N017)
W	RDD must be entered
W	Parent record must not have Bulk Cargo (F026)
W	PAX only record must not have Cargo Bulk POL (F026)
W	ALD must be less than or equal to EAD (30, N017)
W	POD record must not exist for Parent
W	Required Cargo Category quantities must be greater than 0 (F027)
W	Reported Cargo Category quantities must be greater than 0 (F028)
W	RDD is less than RLD (30,F032)
W	RLD must not be blank when UIC is specified (F032)
W	RLD must be blank for Parent (F032)
F	ALD must not be blank when UIC is specified (F035)
W	ALD must be blank for Parent (F032)
W	ALD must be less than or equal to following dates (F035)
F	Invalid POE mode/source for non-CONUS POE = Origin
W	ALD must be blank for unit on call to POD (F035)

5.8 Quick-Reference Guide

The following is provided as a quick reference guide to execution of common operations taking place within the RDA. It does not replace the detail in the earlier subparagraphs.

5.8.1 PID Selection

This action is accomplished on the first window.

5.8.1.1 Multiple PID Operations

Click on Selected button on the Requirements Development and Analysis window. Select desired operation.

5.8.1.2 PID Text Operations

Click on Selected button on the Requirements Development and Analysis window. Select Plan Summary. Click on Edit Plan Information. Click on specific text field desired. Text upload and download capabilities are discussed under the specified text field.

5.8.2 PID Record Action

After PID selection (see subparagraph 5.8.1 above), click on Selected, then select Edit TPFDD.

5.8.2.1 Individual Record Action

Click on Edit. Choose Edit/View Records.

5.8.2.2 Internal Record Select Activity

The following activities may be accessed by the indicated actions.

5.8.2.2.1 Shifting TPFDD Dates

Click on the Edit button, then select Shift TPFDD Dates.

5.8.2.2.2 FM Edits

Click on the FM Edit button, It also is accessible from the Edit menu button.

5.8.2.2.3 Create Records

Click on the Create Records button. It also is accessible from the Edit menu button.

5.8.2.2.4 Flow Analysis

Click on Flow Analysis under the Choose Display button.

5.8.2.3 Other Multiple Record Action

Click on Select Records. There are three choices given. Completion of this activity will fill the "Collection" table. See Section 3 for a description of this table.

5.8.2.3.1 Display Desired

Select the display desired under the Choose Display menu button under which to carry out the desired actions. The activity is primarily used for multiple record editing. The default display is the Timeline. Populating the Timeline requires clicking on Select Requirements.

5.8.2.3.2 Reports

The Reports button provides access to Pre-Defined Reports capabilities. The records considered for these reports include those in the Collection table.

6.0 NOTES

This section contains general information that will aid the user in understanding the RDA software and the functions performed by the system.

6.1 Glossary

The following is a list of commonly used terms that apply to the RDA System:

ASSUMPTIONS - A supposition about the current situation or a presupposition about the future course of events, either or both assumed to be true in the absence of positive proof, necessary to enable the commander in the process of planning to complete an estimate of the situation and make a decision on the course of action.

AVAILABLE TO LOAD DATE (ALD) - A date specified for each unit and non-unit equipment in a TPFDD indicating the beginning of loading on an aircraft or ship at the POE.

BULK CARGO - Cargo with dimensions less than oversize cargo; cargo that will fit on an Air Mobility Command (AMC) type 463L pallet.

C-DAY - The unnamed day that deployment begins.

CARGO - Commodities and supplies in transit.

CARGO INCREMENT NUMBER (CIN) - A seven-character alphanumeric field that uniquely describes a nonunit cargo entry in a TPFDD. The first two characters identify the Service and the type of cargo; the last five characters are the CIN assignment.

CINC - The acronym that refers to the commander of a unified or specified command.

CINC'S REQUIRED DATE - The original date specified by the CINC for arrival of forces or cargo at the destination; shown in the TPFDD to assess the impact of later arrival.

DELIBERATE PLANNING - The process involving the development of joint operation plans for contingencies identified in joint strategic planning documents.

DESTINATION - The terminal geographic location in the routing scheme for forces only (resupply and replacement personnel are routed to a port of support (POS)).

EARLIEST ARRIVAL DATE - A day, relative to C-Day, that is specified by a planner as the earliest date when a unit, a resupply shipment, or replacement personnel can be accepted at a port of debarkation or a port of support during a deployment.

FORCE LIST - A total list of forces required by a plan, including assigned forces, augmentation forces, and other forces to be employed in support of the plan.

FORCE MODULE - A grouping of combat, combat support, and combat service support forces, and their appropriate non-unit -related personnel and supplies, for a specified period of time, usually 30 days. The elements of a force module are linked together or uniquely identified so that they may be extracted from or adjusted as an entity in the TPFDD to enhance flexibility and usefulness of the operation plan during a crisis.

FORCE RECORD - A description of a TPFDD unit composed of three parts:

(1) Force requirement routing data composed of force description information, such as FRN, UTC, ULC, personnel strength, ILOC, POD, destination (DEST), load configuration, movement dates, and preferred mode and source of transportation;

(2) Force unit identification incorporating UIC, unit name, ORIGIN, RLD, POE, ALD, and preferred transportation mode; and

(3) Force movement characteristics, including passengers and cargo of a type unit defined by TUCHA file data for that standard UTC. It is part of the ULN.

FORCE REQUIREMENT NUMBER- A five-character alphanumeric code used to uniquely identify force entries in a given TPFDD.

FRAGMENTATION CODE - The sixth position of the ULN, used to identify elements of a force deploying in more than one increment. If a unit satisfies a force requirement, the fragmentation (FRAG) CODE will be a zero. When more than one unit is needed to satisfy the requirements, each unit is assigned a separate FRAG, using codes 1-9 and A-Z.

GEOLOCATION CODE (GEOLOC) - Specified geographical location information represented by a GEOLOC contained in an automated reference file called "GEOFILE".

INSERT CODE - The seventh position of the ULN, used in conjunction with the regulation code to further identify elements of a force deploying in two or more increments.

INTERMEDIATE LOCATION (ILOC) - An intermediate stopping point in the deployment routing of a unit, used to lay over the force for a specified time, normally longer than one day. It is often used to unite the personnel and cargo of split shipments. This point may occur between the ORIGIN and the POE, the POE and POD, or the POD and the DEST.

LATEST ARRIVAL DATE - A day, relative to C-Day, that is specified by a planner as the latest date when a unit, a resupply shipment, or replacement personnel can arrive at the POD and support the concept of operations.

LEVEL OF DETAIL - Movement characteristics that are described at five distinct levels of detail:

Level 1. Aggregated level. Expressed as total number of passengers and total short tons, total measurement tons, total square feet, and/or total hundreds of barrels by ULN, CIN, and PIN.

Level 2. Summary level. Expressed as total number of passengers by ULN and PIN and short tons, measurement tons (including barrels), total square feet of bulk, oversize, outsize, and non-air-transportable cargo by ULN and CIN.

Level 3. Detail by cargo category. Expressed as total number of passengers by ULN and PIN and short tons, and/or measurement tons (including barrels), total square feet of cargo as identified by the ULN or CIN three-position cargo category code.

Level 4. Detail expressed as numbers of passengers by Service specialty code (i.e., USAF AFSC and USA MOS) by ULN and PIN and individual dimensional data (expressed in length, width, and height in number of inches) of cargo by equipment type (as defined by individual national stock number) by ULN.

MEASUREMENT TON (MTON) - The unit for volumetric measurement of equipment associated with surface delivered cargo. Measurement tons equal total cubic feet of cargo divided by 40. (1 MTON =40 cubic feet).

MISSION - The task, together with the purpose, that clearly indicates the action to be taken and the reason for taking it.

NON-AIR-TRANSPORTABLE CARGO (NAT) - Cargo that exceeds any of the following dimensions: 1,453" x 216" x 156", or has a height between 114" and 156" and a width that exceeds 144"

NON-UNIT-RELATED CARGO - All equipment and supplies requiring transportation to an area of operations, other than those identified as the equipment or accompanying supplies of a specific unit.

NON-UNIT-RELATED PERSONNEL - All personnel requiring transportation to or from an area of operations, other than those assigned to a specific unit.

OPERATION PLAN (OPLAN) - Any plan, except the strategic integration operation plan (SIOP), for the conduct of military operations.

ORIGIN - Beginning point of a deployment, where unit or non-unit-related cargo or personnel are located.

OUTSIZED CARGO (OUT) - Cargo that exceeds 1,090" x 117" x 105", that is, too large for C-130/C-141 aircraft.

OVERSIZED CARGO (OVER) - Cargo that exceeds the usable dimension of a 463L pallet, 104"x 84" x 96", or a height set by the particular model of aircraft.

PERSONNEL INCREMENT NUMBER (PIN) - A seven-character alphanumeric field that uniquely describes a non-unit-related personnel replacement entry in a TPFDD.

PLAN IDENTIFICATION NUMBER (PID) - A command-unique four digit number and a four-to-six-character suffix consisting of a digit identifying a specific option in the plan, a digit identifying the fiscal year of the Joint Strategic Capabilities Plan (JSCP) for which it is written or reprinted, a digit indicating the number of changes to it, and a digit indicating the fiscal year is was last approved.

PLAN SUMMARY - A required element of an operation plan that gives a brief description of the mission, the general situation, the concept of operations, the major forces required, command arrangements, and the commander's appraisal of logistics feasibility.

PORT OF DEBARKATION (POD) - The geographic point at which cargo or personnel are discharged. It may be a seaport or an aerial port of debarkation. For unit requirements, it may or may not coincide with the destination.

PORT OF EMBARKATION (POE) - The geographic point in a routing scheme from which cargo or personnel depart. It may be a seaport or aerial port from which personnel and equipment flow to the port of debarkation. For unit and non-unit requirements, it may or may not coincide with the origin.

PORT OF SUPPORT (POS) - The geographic point (port or airport) in an objective area that is the terminal point for strategic deployment for non-unit-related supplies. Each component designates ports of support for four categories of resupply: general cargo, ammunition, petroleum, oil, and lubricants (POL), and air deliveries.

READY- TO- LOAD DATE (RLD) - The date in a TPFDD when a unit, unit equipment, non-unit-related equipment, or forces are prepared to depart their origin on organic transportation or are prepared to begin loading on USTRANSCOM-furnished transportation.

RECORD - A collection of data elements pertaining to one logical subject.

REQUIRED DELIVERY DATE (RDD) - A date, relative to C-Day, when a unit must arrive at its destination and complete off-loading to properly support the concept of operations.

SHORT TON (STON OR S/TON) - The unit of measure (2,000 lbs.) for equipment or supplies other than Class III(POL).

SPLIT SHIPMENT- A force record that specifies air mode for deploying personnel and surface mode for deploying cargo from an origin to a final destination.

STANDARD UNIT- A type unit whose UTC and movement characteristics are described in the TUCHA file.

TIME-PHASED FORCE AND DEPLOYMENT DATA (TPFDD) - The database portion of an OPLAN; it contains time-phased force data, non-unit-related cargo and personnel data, and movement data including in-place units, units to be deployed with a priority indicating the desired sequence of their arrival at the POD, routing of forces to be deployed, movement data associated with deploying forces, estimates of non-unit-related cargo and personnel movements to be conducted concurrently with deploying forces, and estimates of

transportation requirements that must be fulfilled by common-user lift resources as well as those requirements that can be fulfilled by assigned or attached transportation resources.

UNSPLIT SHIPMENT - A force record that specifies the same transportation mode for a unit's personnel and cargo from an origin to a final destination.

6.2 Acronyms

ALD	Available to Load Date
AMC	Air Mobility Command
APOD	Aerial Port of Debarkation
APOE	Aerial Port of Embarkation
APORTS	Aerial Ports and Air Operating Bases File
ASSETS	Transportation Assets File
AUTH	Authorized
AVG	Average
BULK	Bulk cargo
MBBLS	Thousands of barrels (POL)
CAS	Crisis Action System
CCB	Configuration Control Board
CCC	Cargo Category Code
CDAY	C-Day
CEI	Critical Employment Indicator
CHSTR	Characteristics of Transportation Resource File
CIN	Cargo Increment Number
CINC	Commander-in-Chief
CLASS	Classification
CM	Configuration Management
COA	Course of Action
COE	Common Operating Environment
COMPO	Component Organization
CONFIG	Configuration
CONST	Constraint
CONUS	Continental United States
CRD	CINC Required Date
CSCI	Computer Software Configuration Item
CT	Country
CUFT	Cubic Feet
DART	Dynamic Analysis and Replanning Tool
DB	Database
DEST	Destination
DID	Data Item Description
DISA	Defense Information Systems Agency
DISCH	Discharge
DIV	Division

EAD	Earliest Arrival Date
EIC	Equipment Identification Code
FAPES	Force Augmentation Planning and Execution System
FDBM	Functional Database Manager
FIC	Force Indicator Code
FM	Force Module
FMID	Force Module Identification
FRAG	Fragmentation Code
FRN	Force Requirement Number
GCC	Ground Component Command
GCCS	Global Command and Control System
GEO	Geographic
GEOFILE	Geographic File
GEOLOC	Geographic Location Code
GSORTS	Global Status of Resources and Training System
HT	Height
ICAO	International Civil Aviation Organization
ID	Identification
ILOC	Intermediate Location
IMRAS	Individual Manpower Requirements and Availability System
IMS	Information Management System
INST	Installation
INT	Intermediate Stop
IRM	Information Resource Management
JDS	Joint Deployment System
JES/IMS	JOPES Executive System/Information Management System
JFAST	Joint Feasibility Analysis System for Transportation
JNAV	JOPES Navigation
JOPES	Joint Operation Planning and Execution System
JOPS	Joint Operation Planning System
JOPESREP	Joint Operation Planning and Execution System Reporting Structure
JPEC	Joint Planning and Execution Community
JS	Joint Staff
LAD	Latest Arrival Date
LGTH	Length
LHOUR	L-Hour
LOC	Location
LOGSAFE	Logistics Sustainment Analysis and Feasibility Estimator
LTH	Length
MBBL	Barrels(Thousands)
MEPES	Medical Planning and Execution System
MILSTAMP	Military Standard Transportation and Movement Procedures
MOTIF	Commercial software
MSC	Military Sealift Command
MTMC	Military Traffic Management Command
MTONS	Measurement Tons

NAT	Non-Air Transportable
NBR	Number
NOC	Network Operation Center
N/S	Non-Standard
NURC	Non-Unit Related Cargo
NURP	Non-Unit Related Personnel
OPLAN	Operation Plan
ORACLE	Commercial software
OSF	Off Site Facility
OUT	Outsized Cargo
OVER	Oversized Cargo
PAX	Passengers
PDR	Predetermined Requirements Reports
PERS	Personnel
PIC	Parent Indicator Code
PID	Plan Identification
PIF	Problem Indicator Flag
PIN	Personnel Increment Number
POC	Point of Contact
POD	Port of Debarkation
POE	Port of Embarkation
POL	Petroleum, Oils and Lubricants
PORTS	Port Characteristics File
POS	Port of Support
PR	Problem Report
PROVORG	Providing Organization
PRSL	Personnel
RDA	Requirements Development and Analysis
RDD	Required Delivery Date
REQID	Requirement Identification
RFA	Reference File Administration
RLD	Ready to Load Date
RQMT	Requirement
RSV	Reserve
S&M	Scheduling and Movement
SEQ#	Sequence Number
SIOP	Single Integrated Operation Plan
SORTS	Status of Operational Readiness and Training System
SPOD	Seaport of Debarkation
SPOE	Seaport of Embarkation
SQL	Structured Query Language
SRC	Standard Requirement Code
SRF	Summary Reference File
SSF	Schedule Status Flags
SQFT	Square Feet
ST	State

STONS	Short Tons
SUM	Software User Manual
SVC	Service
SVCR	Service Reserved
S/W	Software
TBD	To Be Developed
TCC	Transportation Component Command
TDS	Transaction Distribution System
TFE	Transportation Feasibility Estimator
TP	Transaction Processing
TPFDD	Time-Phased Force Deployment Data
TPTRL	Time-Phased Transportation Requirements List
TUCHA	Type Unit Characteristics File
TUDET	Type Unit Equipment Detail File
UDC	Unit Descriptor
UIC	Unit Identification Code
ULC	Unit Level Code
ULN	Unit Line Number
UNK	Unknown
URP	Users Review Panel
USERID	Users Identification Code
USTC	United States Transportation Command
USTRANSCOM	United States Transportation Command
UTC	Unit Type Code
WDTH	Width
WIN	WWMCCS Intercomputer Network
XTP	External Transaction Processor